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ABSTRACT

This report presents findings of a longitudinal study of student experiences and how they relate to college outcomes. The study was begun in 1994 and followed approximately 550 students attending the six daytime faculties at York University (Ontario) to the end of 1998. Data included yearly student surveys, focus group meetings conducted with first-year students, and administrative records. Particular attention was paid to differences among faculties, genders, and ethno-racial groups. Findings led to five general conclusions: (1) there was some improvement in students' in-class experiences over the four-year period; (2) students became less involved in many out-of-class activities but maintained a constant amount of interaction with friends over the four years; (3) overall, differences between first and fourth years were not large; (4) in general, the experiences of South Asian and Chinese origin students were relatively negative; and (5) there were virtually no differences based on family income and gender, though experiences varied somewhat among faculties. Individual chapters address the following topics: the university experience, the sample, reasons for attending the university, course work and classroom experiences, experiences outside of class, sources of support for studies, external influences, group experiences, and future jobs. (Contains approximately 85 references.) (DB)

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# THE STUDENT EXPERIENCE AT YORK UNIVERSITY: THE EFFECTS OF INCOME, RACE, AND GENDER OVER FOUR YEARS

J. PAUL GRAYSON

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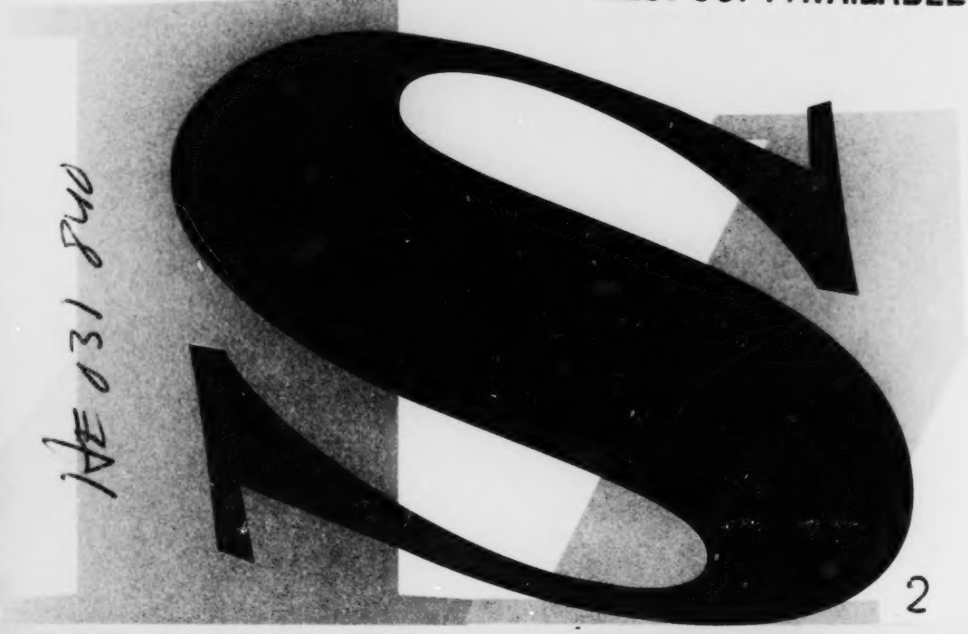

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# THE STUDENT EXPERIENCE AT YORK UNIVERSITY: THE EFFECTS OF INCOME, RACE, AND GENDER OVER FOUR YEARS

J. Paul Grayson
Institute for Social Research
York University

January 1999

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*The following is a report for non-specialist readers.*

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# Introduction

## Introduction

In 1994, approximately 160,000 students entered first year programs in Canadian universities. At York, Canada's third largest university, 7,491 students began their studies in six direct entry daytime undergraduate faculties. An additional 2,342 started classes in the university's part-time evening operation. Three years later, by the end of 1997, 72% of students who joined the six faculties were still pursuing their studies. Among those who enrolled part-time in the evening, only 43% remained on campus.

Unfortunately, in Canada, although we have snap-shots taken of students at one point or another over their academic careers, we have no published studies that follow students enrolled in various faculties from one year to another. As a result, we cannot reliably comment on change that occurs throughout undergraduates' careers in terms of things like the experiences they have with faculty and other students; their involvement in extra curricular activities; and how they view what goes on in their classes. Importantly, each of these has been found to affect outcomes of a university education. As a result, in 1994, a study of student experiences was launched that would follow students over four years of study at York University .

This report focuses on the findings of this study. More specifically, it is about the experiences of students who entered the six daytime faculties at York University (Arts, Fine Arts, Schulich School of Business, Environmental Studies, Pure and Applied Science, and Glendon College) in 1994 and who were still enrolled by the end of 1998. Research shows that the types of experiences that will be dealt with have the potential to positively influence educational outcomes, such as the development of subject matter expertise and intellectual development. Despite this connection, *the focus of this report will not be on outcomes, but on the experiences that promote certain outcomes.* As will be seen later, this is a research strategy that is used more and more frequently in the United States.

Information on students' experiences was collected from surveys carried out in the summer of 1994 before the beginning of classes and at the end of 1995, 1996, 1997, and 1998; from focus group meetings conducted with first-year students in 1994-95; and from administrative records. Throughout the report, in examining students' experiences, particular attention will be paid to differences among faculties, genders, and ethno-racial groups.

The reason for focussing on these different groups is that research on higher education in the United States, and some Canadian studies, show that the experiences of university students vary considerably. For example, students in science and engineering usually have different university experiences than arts majors. As will be seen in later chapters, some commentators believe that in general female students face a 'chilly climate' in universities when compared to their male peers. Empirical research indicates, however, that sex based differences on this dimension are less than originally thought (perhaps because attempts to 'warm' the climate for females have been successful). Similarly, there is growing evidence that on many campuses in the United States Black and

Hispanic students view their environment as more hostile than students of Asian and European origin. Whether or not such perceptions account for the poor showing of many Black and Hispanic students on a variety of indicators is still under debate. What is clear is that in university settings there is a strong element of popular culture supporting the notion that the needs of females and minorities are often overlooked.

When thinking of generalizations about university experiences, it is important to keep in mind that most are based on the study of American undergraduates. While much of the research undertaken in this country suggests that in many respects the experiences of Canadian students are similar to those of their American peers, there are many aspects of the undergraduate experience in Canada that simply have not been researched. The experiences of different ethno-racial groups is a case in point. As a result, we should be careful in applying generalizations based on American research to Canadian students. Moreover, generalizations are just that. As a result, the particular experiences of students in any given university may vary considerably from the general experiences of university students. Because of this, independent of whether generalizations are based on American or Canadian research, we must be careful not to substitute the general for the lived experience of students in any given university. Among other things, to do so might result in the implementation of policies in particular institutions that are inconsistent with students' needs.

Unfortunately, there are no published similar studies of Canadian universities to which the results of the current undertaking can be compared. As a result, while many of the current study's findings may be applicable to other universities with similar student bodies and comparable programs, it would be misleading to make such assumptions before the confirmatory research has been done. The York study is best viewed as a first step in a broader project aimed at describing the experiences of Canadian university students from a variety of faculties.

Throughout the report a common approach will be taken to the examination of different experiences. First, we will see if students' experiences vary from one year to the next. Second, we will see if undergraduate experiences vary by faculty, gender, and ethno-racial origin. While it is beyond the scope of this report to deal with the policy implications of the research in great depth, where appropriate, policy relevance will be noted.

As my intention is to make the results of the current study accessible to a wide range of potential readers, an attempt will be made to keep discussions of technical matters simple. The result is that some of the detail that would be included if the text were published in a professional journal will be minimized. Suffice it to say at this point that the primary techniques that will be used to examine year-to-year change, and differences between groups, will be repeated analysis of variance.

# Chapter 1: The University Experience

## Introduction

Students enter university with different goals, varying amounts of motivation, and different intellectual, cultural, and economic resources. Each of these has the potential to affect subsequent experiences on-campus and what students learn over the course of their studies (learning outcomes). Moreover, once they start their classes, students' experiences can vary depending upon the faculty in which they enroll, the courses they take, and their out-of-class dealings with faculty, university staff, and other students. Importantly, on-campus experiences such as these can be affected by external commitments to work and/or to family.

As a result of these possibilities, before looking at potential changes in the experiences of undergraduates at York University between 1994 and 1998, and how these experiences vary by gender and ethno-racial origin, it is important to develop a conceptual scheme that will bring a degree of order and clarity to what otherwise might be viewed as disparate aspects of the undergraduate student's life. Terenzini's and Associates' (1996) 'university impact model' is a good place to start this endeavour.[1] However, as will be seen, the model needs some modifications before it can serve adequately as an organizing framework for students' experiences and the learning that derives therefrom. Once modifications to the model have been made, it will be possible to examine the extent to which the experiences of female and minority students are consistent with conditions identified in the model thought to maximize learning and other positive university outcomes.

# University Impact Model

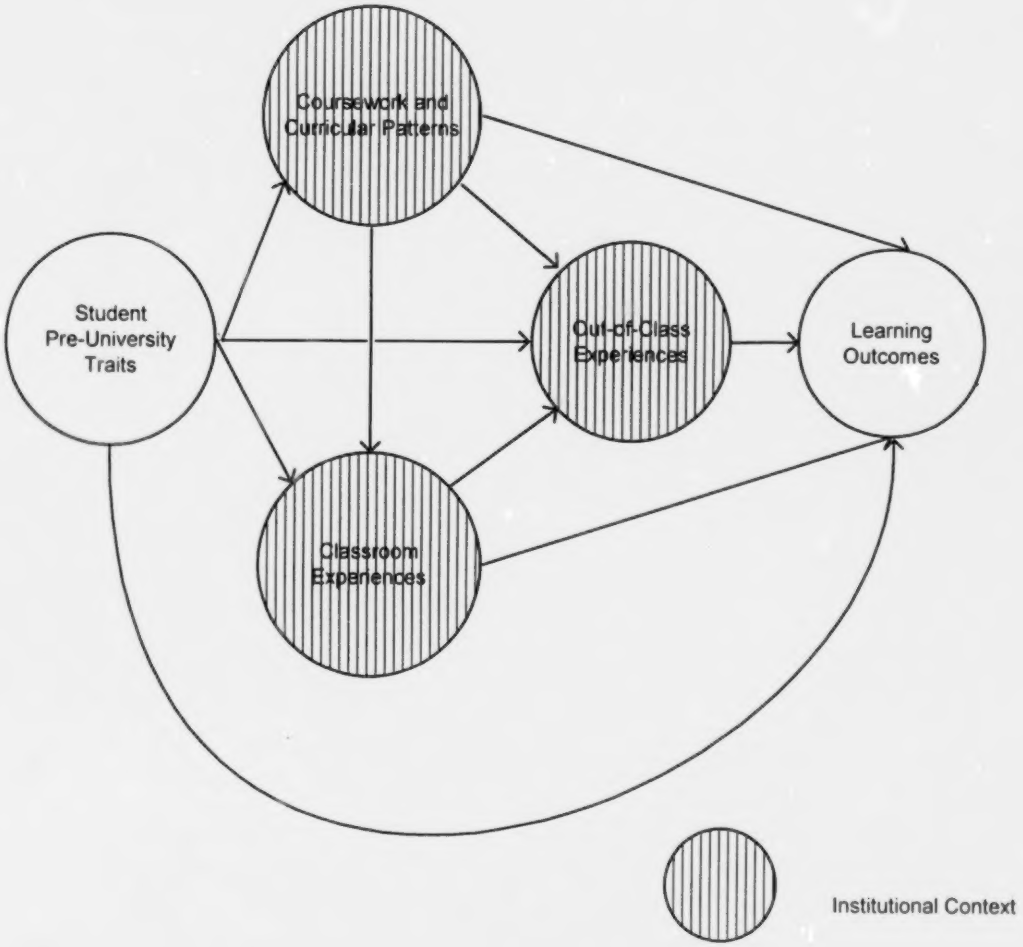
## Overview

The main concepts of the university impact model are summarized in Diagram 1. As can be seen from the diagram, the main idea behind the model is that a number of factors and experiences, not just what goes on in the classroom, can contribute to learning outcomes. Starting on the left side of the diagram, the first of these is 'student pre-university traits' that includes factors such as previous levels of academic achievement (high school marks for example), gender, ethno-racial origin, family income, parental education, type of high school program (gifted or advanced in Ontario), and type of high school attended (public, separate, or private in Ontario).

'Course work and curricular patterns' includes general area of study (Arts, Science, etc.) as well as specific course constellations taken within these areas. 'Classroom experiences' means the way courses are taught (lecture, seminar, studio) as well as the expertise of the instructors (organized, clear, fair, etc.) and the social climate of the classroom (e.g., supportive, competitive).

'Out-of-class experiences' can be of either an academic or social nature. Among the former are contacts with faculty in the office, in the hall, and so on, as well as participation in non-required activities such as attending a talk by a visiting

# Diagram 1: Adapted Model of University Impact*


Coursework and Curricular Patterns
Student Pre-University Traits
Out-of-Class Experiences
Learning Outcomes
Classroom Experiences
Institutional Context

*Adapted From Terenzini & Associates, 1996 professor. Social experiences run the gamut from having a coffee with a friend between classes to participating in cultural and sports activities on campus.

Finally, 'learning outcomes' include finishing a degree, gaining expertise in a field such as physics or history as well as developing more general skills like problem solving, communication, and the ability to work with others.

As seen from the diagram, course work and curricular patterns, classroom experiences, and out-of-class experiences (the shaded areas of the diagram) make up the 'institutional context' of a university. Individual universities can influence what occurs within each of these realms, albeit with varying degrees of success.[2]

## Pre-University Traits

While the shaded areas are those over which the university has a degree of control, the diagram shows that pre-university traits have the potential to affect what goes on within the institutional context. For example, Ratcliff and Associates (1990) found that students with low levels of academic aptitude are more likely than others to enrol in courses that have minimal impact on gains in student learning. In essence, there is a self-selection process at work. In both the United States and Canada, females are less likely than males to enrol in science and engineering programs (Astin and Astin, 1992; Statistics Canada, 1994 ). In addition, in the United States, students of Asian origin are more represented in science than students with other ethno-racial backgrounds (Astin and Astin, 1992). In essence, both gender and ethno-racial origin have an effect on who takes particular course work and curricular patterns.

In addition to having a potential impact on course work and curricular patterns, student pre-university traits potentially have implications for classroom experiences. For example, female students may feel excluded from certain types of classroom activities that are consistent with male values (Hall and Sandler, 1982). Similarly, in the United States it has been shown that particularly Black students may experience many university situations, including what goes on in the classroom, as more hostile than White students (Sedlacek, 1987). More will be said of each of these possibilities later.

It can also be seen from the diagram that out-of-class experiences can be affected by students' pre-university traits. For example, students from families in which neither parent has a university degree (i.e., first generation students) may feel awkward in the presence of relatively high status faculty. As a result, they may be less likely than traditional students to seek out faculty outside of class hours. First generation students may also be less inclined than traditional students to involve themselves in 'high brow' cultural activities on campus.

## Institutional Context

Factors in the institutional context area of Diagram 1 can be affected by one another as well as pre-university traits of students. For example, classroom experiences may vary depending upon particular course work and curricular patterns found in various faculties. The experience in science, for example, in which the focus of study is external to the individual, may be radically different from that in the humanities in which students may be asked to look inward (Tobias, 1990; 1992).

Although in Diagram 1 course work and curricular patterns are treated as conceptually distinct from classroom experiences, differences between the two realms may fade when discussing the impact of each on out-of-class experiences. For example, collaborative learning (active, co-operative, or group learning), that has been found to have a positive impact on learning (see articles compiled by Goodsell and Associates, 1992) requires that students meet outside of the classroom to discuss assignments and complete projects. Straight lecture courses, by comparison, where students are simply the passive recipients of the instructor's knowledge, do not promote this type of activity. A strategy of collaborative learning, however, can be the result of a student's taking a particular course of studies in which collaborative learning is an integral part of the curriculum or the result of his or her enrolling in a course in which the instructor is an advocate of collaborative learning. (In the first case, collaborative learning is the result of policy; in the latter, the result of individual preference.) The same is true for the promotion of competition among students. It may be built into the curriculum of a course of studies or be the preference of individual instructors. Whatever the case, the promotion of competition among students may decrease out-of-class contacts.

While on some occasions the line between course work and curricular patterns and classroom experiences is thin in terms of their impact on out-of-class experiences, on other occasions differences between the two are clear. For example, physical education departments may expect that students participate in sports on campus. Similarly, fine arts departments might assume that students participate in extra curricular cultural activities on campus. Expectations such as these are not necessarily the result of particular classroom experiences (i.e., the preference of individual instructors).

Overall, Diagram 1 shows that learning outcomes are related to students' pre-university traits and various experiences in the university. As a result, various traits and experiences, and their potential relationship with one another and with outcomes, must be examined carefully. It is to this task that we now turn.

## Learning Outcomes

### Pre-University Traits

A growing body of research shows that pre-university traits as well as what goes on within universities have consequences for whether or not students complete their degrees and what students learn. To begin with pre-university traits, Astin, Tsui, and Avalos (1996) have shown that high school achievement and race are good predictors of whether or not a student will complete his or her studies. Also, in a large multi-institutional study, after controlling for factors that would fit under the institutional context rubric in Diagram 1, Astin found that socio-economic status affects self-reported growth in critical thinking, disciplinary knowledge, analytical and problem solving skills, interpersonal skills, and overall academic development (Astin, 1993:407). He summarizes that, "students from high SES families can look forward to more positive outcomes in college, regardless of their abilities, academic preparation, or other characteristics" (p. 407).

Gender was also found by Astin (p. 405) to have direct effects on learning outcomes. More concretely, compared to their male peers, female students report greater increases in inter-personal skills, job-related skills, cultural awareness, knowledge of a particular field, and foreign language ability. By comparison, males report more gains than females in public speaking ability.

## Course Work and Curricular Patterns

The importance of course work and curricular patterns in fostering specific disciplinary learning outcomes is self-evident. For example, it can be assumed that a student with a degree in history will know more history than a physics graduate. The way in which specific courses of study contribute to the development of more generic skills, such as analytical and communication skills, is less obvious. Importantly, it has been found that developments in these areas are not the preserve of courses in specific departments. Instead, Ratcliff and Associates (1991) discovered that the development of skills as measured by the Graduate Record Examination (GRE) (quantitative comparison, antonyms, regular mathematics, analytical reasoning, sentence completion, analogies, data interpretation, reading comprehension, and logical reasoning) are related to the ways in which courses in a *variety* of disciplines are taught and to the ways in which students are evaluated in these courses. As a result, the increases in the logical reasoning of a graduate from English may compare to those of a physics graduate if he or she took courses in which teaching and evaluation promoted and rewarded logical reasoning. Similarly, gains in data interpretation of a sociology graduate may be comparable to those of a drama student.

## Classroom Experiences

Leaving aside course subject matter, classroom experiences can affect learning outcomes in at least two potential ways; first, through the effectiveness of the instructor; second, through the classroom climate (supportive, competitive, etc.). Both of these characteristics can be found in a list of the attributes of effective teachers as defined by Cohen (1981) that according to Pascarella and Terenzini (1991:94) have been corroborated through recent research. In brief, an effective instructor has a good command of the subject matter; develops a rapport with his or her students; is organised; is not unreasonable in terms of demands;

encourages students' active involvement in class activities; and provides students with adequate feedback on their progress.

That instructor characteristics similar to these affect reading comprehension, mathematical ability, critical thinking, and composite achievement, after adjustments have been made for pre-university characteristics and other institutional context factors in Diagram 1, has been confirmed in a study by Pascarella and Associates (1996). Briefly, in a 23 institution study, they found that at the end of first year students who perceived their instructors as organized and prepared demonstrated greater cognitive gains on a number of tests than students reporting less well organized and prepared instructors.

Another classroom experience that has a positive impact on learning outcomes is collaborative learning. For example, in a brief research review, Slavin (1989-90) notes that this type of learning has had positive impacts on both achievement levels and the development of higher order conceptual skills among college students. Despite these findings, Astin (1993:197) found a negative relationship between collaborative learning and retention. His explanation for this unexpected finding is that frequently what passes as collaborative learning is poorly planned and executed and actually promotes, rather than reduces, competition among students.

According to Tinto (1997:559) what goes on in the classroom is particularly important in commuter universities in which the ties that bind students to important activities outside of the classroom that enhance learning may be weak. More specifically, he argues that, "for students who commute to college, especially those who have multiple obligations outside the college, the classroom may be the only place where students and faculty meet, where education in the formal sense is experienced." Tinto adds that, "for [commuter] students in particular, the classroom is the crossroads where the social and the academic meet."

## Out-of-Class Experiences

The research on the extent to which out-of-class experiences influence learning outcomes has been summarized by Terenzini, Pascarella, and Blimling (1996). Overall, they emphasize that learning is the cumulative result of both in-class and out-of-class experiences and that faculty and administrators frequently overlook the importance of the latter. Out-of-class experiences with a potential to affect outcomes include: place of residence; membership in fraternities and sororities; participation in sports; 'other' curricular activities; peer interactions; and contacts with faculty.

### Residence

Overall, Pascarella and Associates believe that it is difficult to make definitive statements on the impact of place of residence on educational outcomes. This said, all else being equal, there is some evidence suggesting that students living on campus make greater gains in critical thinking and reading than commuter students (Pascarella and Associates, 1993). Also, students who live in residences with a clear academic mandate learn more than students who live in other environments (Pascarella and Terenzini, 1980, 1981). In general, the explanation for results such as these is that residence living may facilitate interactions among peers that are conducive to learning. At York University, however, to focus only on academic achievement as measured by grades, research shows that students who live at home with parents are slightly advantaged over those who live in residence (Grayson, 1997a). The explanation for this finding is consistent with

Pascarella and Associates' focus on positive experiences: students living with their parents were more involved in their courses than residence students.

### Fraternities

While studies of the relationship between residence location and learning are inconclusive, there is little ambiguity regarding another out-of-class experience, membership in a fraternity or sorority. Overall, all else being equal, fraternity membership is negatively related to development of reading comprehension, mathematical ability, critical thinking, and overall achievement (Pascarella and Associates, 1995). These effects are particularly pronounced for White males.

### Sports

The effects of sports involvement appear to be mixed. While the achievement levels of sports participants is similar to that of other students, when all else is equal, athletic involvement appears to have a negative impact on academic and cognitive development and on GRE scores (Astin, 1993). For males, these effects may be sport specific (Pascarella and Associates, 1995): whereas reading comprehension and math skills scores declined for football and basketball players over the course of first year, participants in other sports scored the same as non-participants. Female athletes had smaller gains than non-athletes in reading comprehension; however, they were the same as other students in terms of math and critical thinking skill gains.

### Extra-Curricular Activities

While some research suggests that participation in extracurricular activities other than those already discussed has little or no impact on learning outcomes, there is some evidence indicating that involvement in clubs and organizations is related to gains in critical thinking (Terenzini and Associates, 1995a). In addition, Astin

(1993) found that internships or studying abroad resulted in self-reported gains in particular subject matter areas. Overall, however, Terenzini and Associates (1996:155) remark that little research has focussed on the ways in which participation in a wide range of extracurricular activities has affected learning outcomes.

### Peer Interactions

In general, peer interactions that occur in a university setting that have an associated educational component contribute to positive educational outcomes; however, interactions that lack this dimension may actually work against the realization of desired learning outcomes. As an example of the former situation, peer tutoring has been found to have learning benefits for both the student in his or her role as tutor and the recipient of the tutoring (Astin, 1993; Bargh and Schul, 1980). Likewise, all else being equal, compared to other students, those who discuss racial and ethnic issues are more likely to show improvements in overall academic development, general knowledge, critical thinking, and analytical and problem solving skills (Astin, 1993; Kuh, 1995).

To illustrate situations in which peer interactions have a negative effect on learning, it has been found that GRE verbal and composite scores vary inversely with volunteer work (Astin, 1993). Also, the amount of time spent partying and socializing with friends negatively affects Law School Admission Test (LSAT) and GRE analytical scores. Also, Terenzini and Associates (1995a) discovered an inverse relationship between socializing with peers and having an intellectual orientation.

### Faculty Contacts

The results of both self-reports and objective measures of cognitive skills lead to the conclusion that contacts with faculty outside of class result in increases in many measures of academic and cognitive development (Astin, 1993; Baxter Magolda, 1987; Kuh, 1995; Terenzini and Associates, 1995b). This said, the direction of causation is not always clear. Do students with higher abilities seek out faculty or does faculty contact result in enhanced rates of development of various skills?

### Overall Assessment

Overall, the evidence on out-of-class experiences indicates positive and negative implications for learning outcomes. The challenge for faculty and administrators is to promote those conditions found to be consistent with positive outcomes and to discourage those that work in the other direction without stripping university life of many of its pleasurable experiences, such as participation in some sports and partying.

Despite the negative influences of certain university experiences, from the foregoing it is evident that in general involvement in various aspects of the life of the university contributes to positive learning outcomes. As Kuh (1995:126) points out, "the more time and energy students expend in educationally purposeful activities, the more they benefit." A corollary, the importance of which will become evident later, is that students who are not involved, who are marginalised as it were, may be at a distinct disadvantage in terms of learning.

## Model Limitations

Although the college impact model as elaborated here is a useful device for organizing the potential experiences of university undergraduates, and showing the potential impacts of experiences on learning outcomes, it has its limitations. First, as pointed out earlier, as the conceptual model is based on studies of many institutions, it may be inconsistent with what goes on in any one university. It is for this and other reasons that case studies of individual institutions are important. By extension, should research conducted at a given university be inconsistent with some of the generalizations discussed here, it does not necessarily mean that the research is faulty.

Second, even though focussing on what in Diagram 1 is identified as the institutional context contributes to our understanding of processes in universities that contribute to desired learning outcomes, regression models show that the amount of variance explained by the institutional context is small for some outcome measures. For example, although he uses a model that is slightly different than the one in Diagram 1, Astin (1993:439) finds that once adjustments have been made for entering Scholastic Aptitude Test (SAT) scores and other background characteristics of students, the amounts of variance in various GRE scores, and Medical College Admission Test (MCAT) and LSAT scores explained by institutional context factors are small. For example, such factors explain only 3% of the variance in verbal GRE scores, 1% of GRE quantitative scores, 1% of GRE analytical scores, 1% of GRE composite scores, 4% of MCAT scores, and 3% of the variance in LSAT scores.

Similarly small amounts of explained variance have been found in studies dealing with critical thinking, openness to diversity and challenge, and academic achievement. In a study of critical thinking Terenzini and Associates (1995a:33) found that out-of-class experiences explained only 2.9% of the variance and in-class experiences another 2.5%. An analysis of openness to diversity and challenge by Pascarella and Associates (1996:185) revealed that, conservatively estimated, student academic and social experiences explained only 1.02% and 3.50% of the variance respectively. Finally, Grayson (1997a:16) found that only 3.6% of the variance in first year grade point averages obtained from administrative records was explained by student experience variables similar to those in Diagram 1.

Despite these findings, the amount of variance explained by the institutional context component of Diagram 1 is not always low. For example, Astin (1993:439) shows that the amount of variance explained for self-reported gains in various skills is greater than for cognitive gains measured through standardized tests: institutional context variables explain 17% of the variance in self-reported academic development; 19% of the variance in self-reported writing skills; and 12% of the variance in self-reported critical thinking ability.

From the foregoing it is tempting to conclude that institutional context variables explain less of the variance in cognitive tests than in self-reports because the latter are 'soft' indicators of what they purport to measure. That this is not the case is shown by the fact that for 'hard' outcomes, such as graduating with honours and completing the bachelor's degree in four years, institutional context variables explain a considerable amount of variance. More specifically, 22% of the variance in graduating with honours, and 28% of the variance in completing a BA in four years are explained by institutional context variables (Astin, 1993:439). What findings such as these suggest is that models like the university impact model are better at explaining some outcomes than others.

A third limitation of the college impact model is that although in many of their analyses its authors consider the impact of outside activities on learning outcomes, they do not give outside activities diagrammatic representation. Nor do they link the components of the college impact model to job outcomes. It can be argued, however, that the utility of the model in bringing order to otherwise disparate phenomena is enhanced by making these linkages explicit.

## Extended College Impact Model

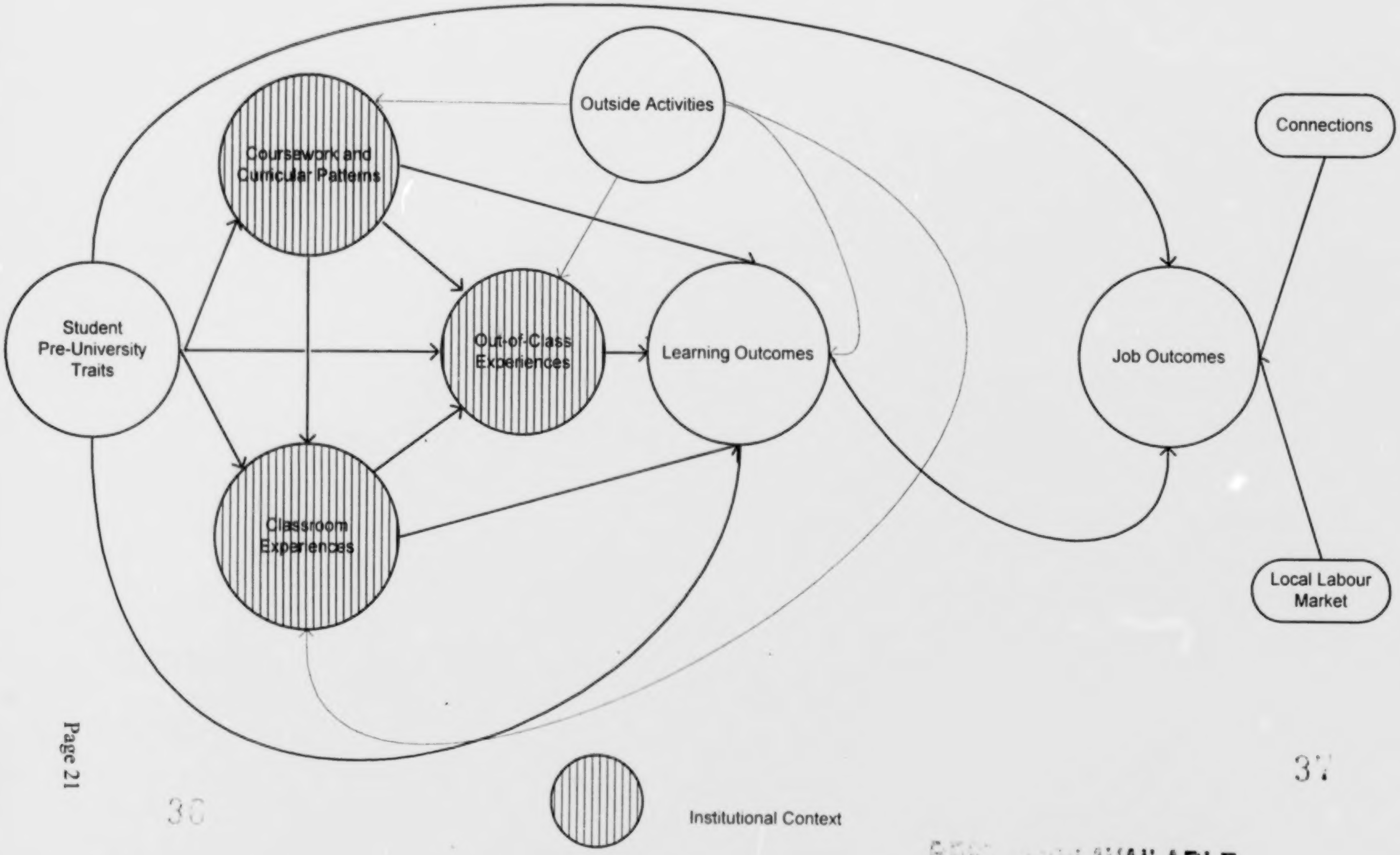
A model in which both outside activities and job outcomes are linked to the university impact model is found in Diagram 2. While the link to outside activities is relevant to the central concern of this book, the connection to job outcomes is only of marginal interest and will not be discussed in great detail.

### Outside Activities

Off-campus part-time work is one outside activity that can affect course work and curricular patterns, out-of-class experiences, and classroom experiences. For example, students who spend many hours per week in paid employment may select their courses more in terms of their time slot than their academic content. Similarly, work commitments may leave little time for participation in various out-of-class experiences like contact with faculty. Moreover, it is possible that preoccupation with work commitments detract from the student deriving full benefit from classroom experiences.

In terms of outcomes, a considerable literature links working outside the university with non-completion of a degree (for example, Anderson, 1981; Astin, 1975, 1993; Ehrenberg and Sherman, 1987). The same studies also show that employment on campus has the opposite effect. Additional research has

Diagram 2: Extended Model of University Impact


Outside Activities
Connections
Coursework and Curricular Patterns
Student Pre-University Traits
Out-of-Class Experiences
Learning Outcomes
Job Outcomes
Classroom Experiences
Local Labour Market
Institutional Context

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demonstrated that after the appropriate controls have been introduced, there is little if any relationship between number of hours worked for pay and grade point average (Etcheverry and Associates, 1993; Grayson, 1995a). Moreover, having a part-time job may actually assist students in developing qualitites, such as personal and organizing skills.

Family responsibilities also have the potential to affect students' college experiences. Indeed, Tinto (1987) suggests that for some students successful adjustment to college requires the breaking of ties with family, friends, and communities. Only if this step is taken are students free to fully participate in, and derive benefits from, university life. Other research, however, indicates that parental encouragement and support has a net positive effect on integration into college, on academic and intellectual development, and on academic performance (Nora and Cabrera, 1996). While these findings may initially appear to be at odds, in fact, they can be reconciled. If the values of parents, friends, and so on are not consistent with those of the university, dissociation may indeed be a necessary prerequisite to success. On the other hand, where the values of parents are consistent with academic success, parental support can assist in the adaptation to university.

### Job Outcomes

To focus on job outcomes, it is fair to say that most readers would like to believe that students who study hard, get good marks, and develop various skills would be the most likely to get jobs as their reward. A study of recent graduates by Grayson (1997b), however, indicates that parental income, a pre-university trait, is a better predictor of employment right after graduation than any other variable. Ethno-racial origin is also important as Black students are less likely than other students to readily find employment. By comparison, university experiences and

GPA have virtually no impact on readily finding a job. At the time of writing, it is too soon to tell if this initial advantage that accrues to students from relatively high income families persists.

### Other Links

Two other potential influences on job outcomes are local labour market conditions and the extent to which students have 'connections'. Obviously, the likelihood of getting a job soon after graduation is greater if unemployment is low than if many people are out of work. Also, students who have connections of various sorts are more likely to get a job soon after graduation than those who must rely exclusively on their own efforts.

## Change Over Time

A considerable amount of research has been carried out on the component parts of the university impact model and the relationship between university experiences and outcomes (see Pascarella and Terenzini, 1991, for a summary). Unfortunately, in these studies data are seldom presented in a way that provides a picture of how university experiences may change over the course of a student's career. An exception to this generalization is a study carried out by Terenzini and Wright (1987) in what they describe as a 'large, selective, public research university in the Northeast'. The objective of the study was to examine the relationship between experiences and outcomes of a panel of 206 students who were surveyed in each of four years of their undergraduate education.

Year to year differences in various experiences are summarized in Table 1. For current purposes, it is not necessary to describe how each of the concepts was operationalized. It is sufficient to show that in this or that year means on various

# Table 1: Means and Standard Deviations for Student Experiences Over Four Years

| | Year 1 | Year 2 | Year 3 | Year 4 |
|---|---|---|---|---|
| *Academic Integration* | | | | |
| Faculty Relations Scale | | | | |
| Mean | 2.56 | 2.61 | 3.02 | 3.02 |
| S.D. | 0.96 | 0.93 | 1.06 | 1.05 |
| Faculty Concern Students & Teaching | | | | |
| Mean | 2.65 | 2.63 | 2.34 | 2.90 |
| S.D. | 0.58 | 0.58 | 0.37 | 0.45 |
| Out-of-Class Academic Faculty Contact | | | | |
| Mean | 1.99 | 1.60 | 1.85 | 1.94 |
| S.D. | 0.56 | 0.88 | 0.86 | 0.95 |
| Out-of-Class Social Contact Faculty | | | | |
| Mean | 0.43 | 0.48 | 0.60 | 0.78 |
| S.D. | 0.71 | 0.75 | 0.81 | 0.94 |
| Classroom Activities Scale | | | | |
| Mean | 2.49 | 2.48 | 2.52 | 2.63 |
| S.D. | 0.49 | 0.55 | 0.56 | 0.55 |
| *Social Integration* | | | | |
| Social Activities Scale | | | | |
| Mean | 3.00 | 2.97 | 2.73 | 2.53 |
| S.D. | 0.68 | 0.63 | 0.60 | 0.58 |
| Peer Relations Scale | | | | |
| Mean | 3.46 | 3.47 | 2.70 | 3.36 |
| S.D. | 0.61 | 0.58 | 0.32 | 0.41 |
| Extracurricular Activities | | | | |
| Mean | 0.74 | 0.81 | 0.89 | 0.79 |
| S.D. | 0.57 | 0.60 | 0.61 | 0.64 |

From Terenzini and Wright, 1987, p. 167.

dimensions were above or below means of other years. Unfortunately, the authors do not present information on level of statistical significance among means for various years of study.

Focussing first on measures of academic integration, on the 'faculty relations scale', students score lowest (2.56) and highest (3.02) in first and fourth years respectively. Moreover, although change from one year to the next is modest, as there is a progressive increase in scores on this dimension from one year to the next, it seems that relations with faculty improve over time. For assessments of 'faculty concern for students and teaching', however, yearly differences are small and not monotonic: the lowest score is in third year (2.34) and highest in fourth year (2.90). As for the amount of out-of-class academic contact with faculty (frequency of academic contact with faculty) yearly differences are once again small and not monotonic. Highest scores are recorded for first year (1.99) and lowest for second year (1.60). Although score differences are small for out-of-class 'social contact with faculty', changes are monotonic: .43 and .78 for first and fourth years respectively. In essence, out-of-class contacts with faculty for social reasons may progressively increase over time. While differences are slight, the 'classroom activities scale' also suggests some progression from first and second years (2.49 and 2.48 respectively) to fourth year (2.63) in involvement with various aspects of classroom based activities.

If measures of social integration are examined, it seems that students are most involved in social activities (social activities scale) in first year (3.00). Thereafter, there is a progressive decline to a score of 2.53 in fourth year. Relations with peers (peer relations scale) are virtually the same in first and second years (3.46 and 3.47), drop in third year (2.70), and then increase a little in fourth year (3.36). Finally, 'extra curricular activities' are highest in third (.89) and lowest in first year (.74).

There are three general observations that emerge from the foregoing. First, differences in students' experiences from one year to the next are generally small. Second, for four out of eight measures (the nature of faculty relations, frequency of out-of-class contact with faculty for social reasons, classroom activities, and peer relations) scores improve with time. Third, for only one of the remaining measures, social activities, is there a progressive deterioration over time (this may or may not be a negative development). As a result, it is possible to conclude that across four years of study there may be a slight improvement in the quality of students' experiences. In later chapters it will be possible to determine if the experiences of York students follow a similar general trajectory. In making comparisons the relatively small size of Terenzini's and Wright's sample must be borne in mind.

## Good Practices Approach

Information presented so far in this chapter suggests that learning and the development of cognitive and other skills in the university context is related to students' pre-entry characteristics, such as high school grades; particular courses of study, like science or humanities; classroom practices, such as collaborative learning; social and academic experiences in the wider university; and outside commitments, like work. While individual institutions have limited control over pre-entry characteristics (through admissions policies) and no control over students' outside commitments, through professors and the types of programs offered they can influence what goes on in classrooms. To a lesser extent, by making various opportunities available, universities can also influence students' out-of-class experiences. As a result, as Kuh and Vesper (1997) and Kuh, Pace, and Vesper (1997) point out, if universities promote 'good practices' in the appropriate areas they can enhance students' learning experiences and assist in the realization of desired learning outcomes.

This basic proposition is brought home in a study involving 75 American universities, using the College Student Environment Questionnaire (CESQ), that measures what students gain from attending university, the amount of time and energy students devote to university related activities, and their perceptions of various aspects of the university environment. In this study, Kuh, Pace and Vesper (1997) were able to show that gains in general education and intellectual skills of both males and females were related to good practices that can be influenced by university policy. More specifically, gains in these areas were most influenced by active or collaborative learning and co-operative relations among students. Perceptions that the university valued scholarship, aesthetic interests, and critical thinking also contributed to gains. By contrast, students' background characteristics were of marginal impact.

The importance of these findings derives from the fact that while it is difficult and expensive to measure increases in areas such as cognitive skills, it is relatively inexpensive for universities to measure good practices such as the promotion of active learning and co-operative relations among students. (Indeed, this possibility underlies the concern of the present study with the experiences of York students over a four year period.) And while there is no guarantee that good practices translate directly into desired learning outcomes, it is a good bet that learning is more likely to occur in the presence rather than in the absence of good practices. As a result, much of the analysis of the experiences of York students will focus on the degree to which males and females and students of various ethno-racial origins participate equally in experiences shown to contribute to desired learning outcomes.

## The 'Chilly Climate' Thesis

A central proposition of a position called the 'chilly climate thesis' is that female students in fact do not participate in good practices and rewarding experiences in the university to the extent of their male peers. Although the recognition that the university experience of females may have been different from that of males has long been recognized, it was only in the early eighties that in the United States Hall and Sandler (1982; 1984) combined some previous research with some widely held beliefs that found expression in the chilly climate thesis. The fundamental tenet of this thesis is that:

> Women students are often treated differently than men at all educational levels, including college, graduate and professional school, even when they attend the same institutions, share the same classrooms, work with the same advisers, live in the same residence halls and use the same student services (p. 2).

In general, the treatment in question is negative but not necessarily intentional. It can simply be part of the taken for granted aspect of daily interactions between men and women in a university setting. Moreover, such neglect is not restricted to classroom situations. In fact, it is frequently most blatant in dealings female students have outside of their classrooms.

Within the classroom, or in their dealings with faculty members, specific behaviours that contribute toward a chilly climate for women students include the following:

- female students are interrupted more frequently than male students
- they are viewed as sexual beings
- they are seen as less capable and serious than male students
- faculty make less eye contact with female students
- in discussions, faculty pay less attention to female than to male students
- faculty are less likely to choose females as assistants
- female students are given fewer detailed instructions than their male peers
- frequently, perceptive comments of female students are attributed to men
- faculty infrequently use the names of female students when addressing them
- when compared to males, females are frequently asked factual rather than analytical questions (Heller, Puff, and Mills, 1985).

According to Hall and Sandler (1984: 4-5), if women internalize the devaluation implicit in these and other negative behaviours, they will doubt their competence and abilities and experience, and lower their career sights. In addition, differential treatment may deter female students from seeking assistance with their academic concerns, from using academic services, and from participating in university life. Some researchers have postulated that a pervasive chilly climate also inhibits women's intellectual development (Kuh and Associates, 1991; Whitt, 1992). To Hall and Sandler, the position of minority women is particularly difficult as they face a 'double devaluation' (p. 11).

Although the chilly climate thesis continues to be accepted by many on university campuses as an adequate representation of reality, the position is inconsistent with the findings of many studies of the university experience. Such investigations have shown that although some of the experiences, behaviours, and self-assessments of female students are different from those of males, there is little reason to believe that these differences are primarily the result of intentional or unintentional differential treatment in the university.

An early study carried out to empirically test the chilly climate thesis was undertaken by Heller, Puff and Mills (1985) at Franklin and Marshall College in the United States. Their methodology involved asking students 18 questions on faculty behaviour related to the chilly climate thesis. Overall, they found that "there was a steady increase during students' four years in the frequency with which they perceived that they were asked to lead discussions, the frequency that they were called upon when volunteering, and the frequency with which they were called by name" (p. 453). Moreover, the main predictor of how students answered questions was not sex but the nature of the classes in which they were enrolled and year of study.

While the chilly climate thesis contends that the career horizons of female students are lowered as a result of negative treatment at the university, the authors of the study note that, "there were no significant differences of any kind on the measures of how confident students were about their preparation for graduate school or for their careers" (p. 454). In addition, contrary to the chilly climate thesis, males were asked more factual than analytical questions by faculty and females did not perceive that they were belittled by their professors or made to feel academically limited. Observations such as these lead to the conclusion that, "the climate in higher education...is the opposite of that suggested by Hall and Sandler's review" (p. 458).

Although Vassar College may be atypical of American institutions, an observational study carried out there of class behaviours also calls into question the assumption of the chilly climate thesis that females are treated poorly by male professors. Constantinople, Cornelius and Gray (1988:548) write that, "we find almost no evidence of systematic differences between male and female teachers in the sorts of behaviours that characterize their classrooms." By comparison, they do note that class participation varies by discipline with highest student involvement in Arts classes and the lowest in courses in science. Participation in social science classes falls between these extremes.

Although its central focus was not on the chilly climate thesis, a study undertaken by Miller-Bernal (1993) of three coeducational colleges (Hamilton, Hobart and William Smith, and Middlebury) and one exclusively female college (Wells) in the United States contributes to our understanding of the relationship among gender, student experiences, and learning outcomes. In the exclusively female college it was found that students had more role models, had greater numbers of courses with female faculty, engaged in more leadership activities, and participated slightly more in class than female students in the other colleges. There were, however, no differences in sports involvement or in the amount of praise female students received from faculty. Overall, then, the experiences of females in the all-women college were somewhat different from those of their peers in other institutions.

In terms of the relationship between these experiences and outcomes, however, the authors of the study note that, "For only one outcome, students' change in satisfaction with themselves, were there significant links to several college experiences" (p. 48). In essence, even if Hall and Sandler were correct in their assumption of differential treatment of women in co-educational settings, it cannot be assumed that such treatment affects all educational outcomes.

Additional information inconsistent with the chilly climate thesis was found in a study of classroom behaviour carried out in a 'small, private, moderately selective, Midwestern liberal arts college' by Fassinger (1995). In this case it was discovered that there were some differences in the experiences of male and female students. For example, males were more confident and more involved in classroom interactions than females. By comparison, females were more prepared for class and more interested in courses and in their peers' comments and questions than males.

Explanations for these and other attitudes and behaviours, however, could not be related to differential treatment meted out by faculty. Importantly for the chilly climate thesis, the way faculty were viewed did not vary by students' gender. Moreover, in a regression with class participation as the dependent variable and class characteristics (size, amount of student interaction, etc.), student traits (e.g., confidence, interest, preparation), and faculty characteristics (supportive, approachable, for example) as independent variables, "no professor variables remain in the final equation. Only student and class variables combine to explain 37 percent of variance in class participation" (p. 91). Moreover, the results of the regression were similar when run for males and females separately.

In essence, while in Fassinger's study class participation can be related to the characteristics of both classes and students, it cannot be linked to faculty characteristics. This finding is contrary to the chilly climate proposition that faculty behaviour inhibits female involvement in classes. Indeed, the author of the study concludes that, "the chilly climate of college classrooms may at times be created by students themselves" (p. 94).

The final study relevant to the chilly climate thesis to be discussed involved 1,636 female students in 23 institutions in the United States. In this case Pascarella and Associates (1996) were interested in the relationship between a perceived chilly climate and cognitive development as measured through tests. Students were examined at the beginning and at the end of their first year. Once adjustments had been made for pre-university characteristics and institutional experiences as outlined in Diagram 1, it was found that perceptions of a chilly climate affected two out of five cognitive outcomes: a composite measure of cognitive development and self-reported gains in academic preparation for a career. The magnitude of the impact, however, was minor. As explained by the authors, "Even on those cognitive outcomes where the chilly climate scale had significant negative associations with women's cognitive outcomes, the unique variance in those cognitive outcomes explained by a perceived chilly climate ranged only between 0.9% and 2.7%" (p. 13). In essence, contrary to suppositions of the chilly climate thesis, even for female students for whom the climate is chilly, there is little impact on specific learning outcomes.

The implication of the studies reviewed here is that there may be some differences in the experiences and behaviours of female and male students; however, it is difficult to attribute such differences to conscious or unconscious differential treatment by faculty. This does not mean that no female students perceive the university climate as chilly. Nor does it mean that the experience of female or male students are the same across all campuses. Also (and importantly), it does not mean that females *never* suffered the consequence of differential treatment in universities. (It is highly likely that many female scholars who attended universities prior to the late sixties and early seventies did experience many of the circumstances described by Hall and Sandler.) What it does mean is that today on any campus it is necessary to carry out empirical research before assuming that female students experience a chilly climate.

The research cited in the foregoing discussion is based on the experiences of students in American colleges and universities. The reason for this is that although some Canadian researchers have touched on some aspects of a chilly climate (see, for example, Donaldson and Dixon, 1995) the issue has yet to be researched systematically in an empirical way. As the overall position of women in Canada is comparable to that of American women, in the absence of research on the chilly climate in Canadian universities, it is reasonable to assume that the findings of U.S. studies are applicable north of the border. This said, incidents on various campuses across the country (University of British Columbia, University of Victoria, etc.) continue to affirm for some that the climate is indeed chilly for female students in Canada (see the Chilly Collective, 1996; Fekete, 1994; and Marchak, 1996 for discussions of some chilly climate issues).

## Minority Students

While there is some reason to believe that the experiences of female students in Canada and the United States may be similar, it cannot be assumed that White and minority students have comparable experiences in both countries. The reason for this assertion is that some non-White groups have had different histories in each country. For example, in the United States, the largest non-white minority, Blacks, came to North America under different circumstances than their counterparts in Canada. More specifically, American Blacks were brought to the country involuntarily and were forced to participate in a slave mode of production. The tensions, animosities, and inequities arising from that system are still evident in contemporary American society. By comparison, there are relatively few Blacks in Canada. Moreover, the majority of Black Canadians are voluntary and recent immigrants from Caribbean countries - they were not brought here under duress. In addition, slavery never played a major role in economic life in Canada.

A second way in which Canada differs from the United States is in terms of the number of individuals of Hispanic/Latino/Chicano origin. In the United States these groups make up the second largest non-white group while in Canada they comprise a relatively small segment of the population. Moreover, unlike in the United States, individuals of Hispanic origin are relatively recent arrivals to Canada.

Where both countries are similar is in terms of the size and treatment of individuals of aboriginal, Chinese, and Japanese origin. While Canadian dealings with aboriginals were somewhat more humane than in the United States with its official policy of extermination, it is evident nonetheless that native peoples' contacts with Whites in Canada have been less than mutually rewarding. Also, in both societies it is a fair comment that individuals of Chinese origin were originally admitted into the country as a cheap source of labour and were often denied rights taken for granted by Canadians and Americans of European origin. Similarly, in both societies, those of Japanese origin, even though they may have been born in North America, were treated as enemy aliens in the Second World War and many were restricted to internment camps until the cessation of hostilities in 1945. Canada and the United States are also alike in that immigration from India and Pakistan is a relatively recent phenomenon.

In essence, there are differences between Canada and the United States in terms of the composition of the non-White population and the histories of some non-White groups. The extent to which these historical and societal factors have created tensions that affect the university experience has been studied in the United States to a far greater extent than in Canada. In fact, the only empirical studies of the racial climate in Canadian universities have been carried out at York University (Grayson, 1993; 1994; 1995b; 1997c).

In research conducted on racial climates in universities in the United States it is clear that in many ways the experiences of university students do not divide neatly into White versus non-White: the experiences and accomplishments of Asian origin students are more comparable to those of White than either Black, Hispanic, or aboriginal students. Moreover, university educational outcomes for Black and Hispanic students are relatively negative, as summarized by Smedley, Myers, and Harrell (1993:434):

> African-American and non-Asian minority students attending predominantly White colleges are less likely to graduate within five years, have lower grade point averages, experience higher attrition rates and matriculate into graduate programs at lower rates than White students and their counterparts at predominantly Black or minority institutions.

In addition, single and multiple institution studies show that Hispanic and particularly Black students are likely to perceive prejudice and hostility on predominantly White campuses, to feel alienated from their universities, and to experience stress that can be attributed to their minority status (Patterson Jr., Sedlacek, and Perry, 1984; Loo and Rolison, 1986; Hurtado, 1992; Nora and Cabrera, 1996).

Despite findings pointing to negative outcomes and feelings of prejudice etc. on the part of Black and Hispanic students, it cannot be concluded that undesirable outcomes are connected to perceived negative racial climates. For example, in a study of a large unidentified commuter university, Nora and Cabrera (1996:133) found no relationship between perceptions of prejudice and discrimination and GPA. Indeed, these researchers discovered that in addition to GPA a number of outcomes - perceptions of intellectual and academic development, goal commitment, institutional commitment, and persistence - were better explained by factors such as "performance in college, encouragement from parents, positive experiences with the academic and social realms of the institution" (p. 141) than by perceptions of prejudice and discrimination. This explanation is consistent with the logic embodied in Diagram 1.

While several studies confirm that Black and Hispanic students perceive prejudice and discrimination and are alienated from their universities, in a study carried out on one of the campuses of the University of California, Loo and Rolison (1986:72) found that the alienation of many Black and Chicano students was not a result of prejudice and discrimination in the university. Instead, they argue that "the academic alienation of many Black and Chicano students was due to poorer academic preparation in high school and the 'culture shock' of entering a class and culture distinctively different from their background." Relative lack of preparation for university on the part of minorities was also noted by Nora and Cabrera (1996:130). In essence, particularly Black and Chicano students, who tend to come from disadvantaged families, enter university and college less well prepared academically, and with less cultural capital, than their White or Asian origin peers. As a result, they experience stress and become alienated from the core values and practices of the institution.

The research demonstrating that less than optimal outcomes for minority students cannot be explained primarily by prejudice and discrimination also shows that the negative outcomes of some non-White groups cannot be explained by professors' behaviour. For example, Loo and Rolison (p. 66) point out that, "White and minority students did not differ in the level of faculty acknowledgement received for their class contributions nor in their degree of comfort about raising questions." Similarly, "White and minority students did not differ in access to faculty support: 81% of white and minority respondents said there was a faculty member who was supportive." Along parallel lines, Nora and Cabrera (1996:130) discovered that minorities were more likely than whites to report positive interactions with faculty. In another study involving 26 American institutions, however, Nora and Associates (1996:447) found that for minority students formal interactions with faculty did not offset the negative influence on persistence for minority students of family responsibilities and working off campus.

In addition to calling into question notions that minority students are treated differently by faculty, research also shows that minority students are not relatively deprived of positive contacts with their peers. For example, Loo and Rolison (1986:69) report, "the alienation felt by minority students was neither due to difficulties in making friends nor to racial hostility from Whites." Similarly, Nora and Cabrera (1996:130) noted that minorities were more satisfied with their interactions with peers than Whites. Nora and Associates (1996:447) note, however, that positive peer relations do not offset factors that predispose minorities to lower retention rates than Whites.

The picture that emerges from the research on American universities is that non-Asian minority students come from relatively impoverished backgrounds and enter colleges and universities less academically prepared and with less relevant cultural capital than White or Asian origin students. As a result, they rapidly become alienated from their institutions and may report perceptions of prejudice and discrimination. At the same time, non-Asian minorities find as much or as little support from faculty and peers as White students. Such support, however, is not sufficient to overcome disadvantages associated with poor academic preparation and family and job responsibilities. As a result, non-Asian minorities tend to abandon their studies more frequently than other students and may experience less positive outcomes of the university experience than Whites and Asians. Although the argument will not be developed here, this explanation is consistent with the logic embodied in Diagram 1.

Discussion so far has focussed on the findings of American studies of minorities in colleges and universities. In the relative absence of research on similar matters in this country, it is fair to say that the common assumption is that minority students are at a disadvantage. This impression is clearly evident in an article by Henry and Tator (1994:8) who argue that, "the silence and marginilization on the issues of racism that generally pervade many classrooms in the university deeply affects the self-esteem and self-image of students of colour, who often engage in a daily struggle to affirm their own social identities in relation to an institutionalized culture that denies their personal feelings, stories, and experiences." Unfortunately, only four published studies based on other than anecdotal evidence have been conducted in a Canadian University (York) in which outcomes are linked systematically to university experiences and ethno-racial origin.

In one of these studies Grayson (1995b) found that first year experiences vary by race; however, the data do not support the conclusion that the experiences of students of non-European origin are uniform and necessarily negative while those of European background students are positive. Moreover, while such experiences may have implications for first year outcomes, the impact of race per se on outcomes - self-assessed intellectual development and knowledge, grade point averages, and intentions to return to the university - is minimal. In another study (Grayson, 1997c), it was found that ethno-racial origin had no impact on voluntary withdrawal from the university after first year. When it came to involuntary withdrawal, however, being Black or of 'other' non-European origin did increase the probability of not returning to the university for a second year.

## Conclusion

This chapter has shown that various university experiences contribute to the realization of educational outcomes. For example, if done properly, co-operative or collaborative learning contributes to intellectual development. As a result, it is in the interests of universities to actively promote certain student experiences. Evidence has also been presented indicating that students' experiences and related outcomes may vary with their family incomes, faculty of enrollment, gender, and ethno-racial origin. Unfortunately, whether or not the nature of students' experiences remain the same or change over the course of their academic careers has received little attention. The scant information that is available suggests that while some aspects of academic involvement may increase, aspects of social involvement may decrease.

It is against this backdrop that the experiences of students at York University will be examined. More precisely, attention will focus on the exact nature of the undergraduate experience at York, how it changes from one year to the next, and whether or not different groups of students have similar types of experiences. Once the nature of student experiences have been identified, it will be possible for the University to enhance those that are positive and change those that are negative. By doing so, the University can contribute to the realization of positive educational outcomes. Before focussing on student experiences, however, it is important to discuss how the sample for the current study was chosen.

# Chapter 2: The Sample

## Introduction

In this chapter, attention will focus on the ways in which students were selected for the study of race, gender, and the student experience at York University. In addition, time will be spent on examining the extent to which students included in the sample are representative of all students completing three and four years of study at York University. Finally, a brief comment will be made on the implications of sample selection for the type of analyses that can be carried out.

## Sample Selection

At York University, six faculties obtain most of their entering students directly from high school: the Schulich School of Business (SSB), the Faculty of Fine Arts, the Faculty of Arts, the Faculty of Pure and Applied Science, the Faculty of Environmental Studies, and Glendon College. As the name implies, the SSB offers undergraduate programs leading to a bachelor's degree in administrative studies. Fine Arts provides programs in music, theatre, dance, film, and so on. Arts offers programs in the humanities and social sciences. A range of science programs are offered through the Faculty of Pure and Applied Science. Environmental Studies students can participate in programs focussing on various aspects of the social and physical environments. Finally, Glendon College, located approximately 15 km from the main campus on an old estate, offers a bilingual liberal arts program.

In 1994, the starting date for the current study, the largest single number of students entering first year from high school, 3,559 (71% of all new entrants), were enrolled in the Faculty of Arts. The next largest number, 472, was found in Pure and Applied Science. Fine Arts and Glendon College enrolled 397 and 360 students respectively. SSB and Environmental Studies had only 154 and 79 students. Particularly because of the fact that Arts is so much larger than other faculties, students involved in the current examination of class (family income), race, gender, and the student experience at York University were chosen for the study in the following way.

First, in July of 1994, questionnaires were sent to a sample of students graduating from high school who had been offered admission for the September 1994 term. The objective of this survey was to examine similarities and differences between students who accepted and rejected the university's offer. In this endeavour, surveys were mailed to all of the students who were admitted to the SSB, Environmental Studies, Fine Arts, and Glendon College. Because of their relatively large size, one-fifth and two-thirds samples were taken from the faculties of Arts and Pure and Applied Science respectively.

The data collection procedure used at the ISR in mail surveys of this nature involves four steps. First, students are mailed a questionnaire with a self-addressed and stamped envelope. Second, two weeks later they are sent a reminder card. Third, after a specified date, all non-respondents are sent a second questionnaire. Fourth, shortly thereafter remaining non-respondents are mailed a final reminder card. As a result of this procedure, 1,798 students who accepted York's offer, and 1,735 who rejected it, responded to the survey. These figures represent response rates of 83% and 66% respectively.

At the end of first year, in February and March of 1995, further surveys were sent to all of the students who entered the SSB, Environmental Studies, Fine Arts, and Glendon College who were still enrolled in the university. As noted above, approximately 83% of these had already replied to the survey sent out in the summer of 1994. In addition, while only a two-thirds sample had been selected from the Faculty of Pure and Applied Science in the summer survey, at the end of first year questionnaires were mailed to all students who entered Science in 1994 who remained in the university at the end of first year. Many of these had previously completed the summer 1994 questionnaire. Finally, questionnaires were mailed to all students entering the Faculty of Arts who had completed the summer 1994 questionnaire and who were still enrolled at York. In addition, in anticipation of a 60% response rate, a random selection of students not included in the summer 1994 study was added to the original Arts sample so that a reasonable number of responses from York's largest faculty would be available for cross-sectional analysis. This procedure resulted in a sample size of 1,865 representing an overall response rate of 64%.

At the end of second year, in 1996, the questionnaire used in the 1995 study was again mailed to all students who entered in 1994 and who remained in SSB, Environmental Studies, Fine Arts, Glendon College, and Pure and Applied Science. In Arts, all students who had replied to the 1995 survey who remained in the university, as well as an additional random selection of Arts students entering the university in 1994, were mailed a copy of the questionnaire. Once again, the objective was to maintain a reasonable number of Arts students for cross-sectional analysis. The total number of respondents to the survey was 1,546 for a completion rate of 59%.

In 1997, the same procedure as in 1996 was followed. The only difference was that this time 1996 (not 1995) respondents to the Arts survey were supplemented by a 1997 sample of Arts students who entered the university in 1994 and who were still enrolled at York. A total of 1,217 students participated in the survey for a response rate of 52%.

Clearly, over the four surveys that employed the same data collection process the response rate declined considerably, from 83%, to 64%, to 59%, to 52%. Nonetheless, 52% remains a good response rate for a mail survey. The decline itself may be a manifestation of 'survey fatigue' on the part of students.

By the end of 1997, 761 students had replied to all three end-of-year surveys carried out in 1995, 1996, and 1997. Of this number, 535 had also participated in the summer 1994 survey.

By the end of the fourth year in 1998, 98 of the 761 students who had responded to the three end-of-year surveys had graduated or left the university. As a result, questionnaires were mailed to the remaining 663 students. Because it was important to re-survey as many of this group as possible, in 1998 it was decided not to augment the Arts sample as in previous years. Instead, resources that otherwise would have gone toward augmenting the sample size for Arts were devoted to calling by telephone non-respondents after the receipt of the final reminder card in an attempt to convince them to participate in the survey. Using this method it was possible to obtain completed questionnaires from 513 of the students who had responded to the 1997 survey who had not yet graduated or left the university. This number represents a response rate of 77%.

The 761 students remaining in the study at the end of three years of education in 1997 represent 41% of students replying to the first survey in 1995. The 513 students who responded to all four end-of-year surveys represent 28% of students who completed a first questionnaire in 1995. When examining these rates, it must be borne in mind that at York University, on average, only 66% and 50% of students who enter first year are still on campus three and four years later respectively. Unfortunately, it would be time consuming to factor this reality on a year by year basis into a calculation of a response rate based on students who were in first year in 1995 and in their third and fourth years of study in 1997 and 1998. As a second best yet acceptable measure it is possible to estimate the effect of general student attrition rates on the number of students entering in 1995 who likely were still available for the survey in 1997 and 1998 by reducing the original 1865 first year base by 34% (100% - 66%) and 50% (100%-50%) respectively. If this procedure is followed it can be estimated that roughly 62% ((761/(1865 *.66))*100) of students who replied to the first end-of-year survey in 1995 who were still in the university in 1997 completed the 1997 survey. Using the same logic, it can be estimated that approximately 55% ((513/(1865 *.50))*100) of students who completed the first survey who were still enrolled at York in 1998 replied to the final survey.

While there are no Canadian data with which to make comparisons, research conducted in the United States suggests that retention rates such as the foregoing are good. For example, Dey (1997:216) shows that in 1987 it was possible to retain only 26% of the participants in a large U.S. panel study of university students started in 1983. In 1989 only 23% of students who became involved in a similar panel study started in 1985 remained. Finally, in 1991, only 21% of students in a panel study started in 1987 stayed with the project. Unfortunately, Dey does not specify if extraordinary steps were taken to maximize response rates. Nonetheless, these and other data presented by Dey show that panel attrition in studies of students is high and that it is increasing with time.

## Representativeness of Sample

In many instances in which a sample is drawn in the way noted in the previous section, it would be desirable to weight results to reflect the fact that students in Arts were selected for inclusion in the study in a different way than those in other faculties. Quite simply, there was a far greater probability of being included in the sample if students were *not* enrolled in the Faculty of Arts. However, in view of the fact that Arts is so much larger than all other faculties combined, were weights applied to correct for this sampling bias, for all intents and purposes the current study would be one of Arts students. As a result, it would not be possible to determine the extent to which students' experiences might vary by faculty of enrollment. Because of this consideration, in the following analyses, the sample will not be weighted. Instead, most analyses will be carried out in a way in which faculty of enrollment is a constant control and, as a result, weighting is unnecessary.

Although the type of analysis to be carried out does not require that the sample be representative, for some purposes it is nonetheless important to see how well it represents students who began their studies in 1994 and who were still enrolled four years later. For current purposes, given that in all faculties with the exception of the Faculty of Arts *all* students who enrolled in 1994 who were still enrolled in 1998 were sent a questionnaire, and given that the average response rate for the 1998 survey was 52%, we hope that survey results represent students in the relevant faculties.[1] Unfortunately, we cannot determine the extent to

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[1] Dey (1997:218) points out that: "It is common in...surveys to compare respondents and nonrespondents across known population characteristics (such as basic demographic information, or perhaps grade point average within the context of research on students); the reality is that 'even when one can be confident that no differences exist on these [types of] variables, one still does not know whether differences exist on those variables

(continued...)

which the 1998 Arts sample is representative (remember that it was not augmented in 1998). At best, we can examine its representativeness in 1997 and hope that it remained representative in 1998.

To determine the extent to which 278 Arts students who completed all three surveys are representative of Arts students entering York in 1994 who were still enrolled three years later, we can make comparisons between the 278 and all of the 492 Arts students included in the 1997 sample. (The latter sample includes participants answering all three surveys as well as a random selection added to the list of 1996 respondents.)

The characteristics of the two overlapping Arts samples are shown in Table 2:1. The criteria on which the samples are compared include ethno-racial origin and gender, two of the most important independent variables in the current study. Family income, number of completed credits, and grade point average (GPA) have also been included for comparison. (Number of completed credits and GPA were obtained from administrative records.) While with the exception of the first two variables the list is somewhat arbitrary and may not represent dimensions on which the two samples differ, there is no way in which to clearly identify more relevant dimensions for comparison (see Dey, 1997 for a discussion of some of the relevant issues here).

Overall, table data suggest little difference between students completing all three surveys (three survey respondents) compared to those completing the 1997 survey (cross sectional respondents) with regard to ethno-racial origin, gender,

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[1] (...continued)
of interest that led to the decision to conduct the survey' (Dillman, 1991:229). This has led to the response rate being seen as a proxy to nonresponse bias despite the lack of correspondence between these two concepts."

# Table 2:1 Characteristics of Arts Students Responding to Surveys

| Variable | Three Survey Respondents | Cross Section Survey Respondents |
|---|---|---|
| *Ethno-Racial Origin* | | |
| Arab & West Asian | 2.5% | 2.3% |
| Black | 5.5% | 6.0% |
| Chinese | 13.5% | 11.3% |
| South Asian | 6.9% | 6.8% |
| Other Asian | 3.6% | 3.5% |
| Other Non-European | 3.3% | 4.7% |
| European | 64.7% | 65.5% |
| Total | 100.0% | 100.0% |
| *Gender* | | |
| Male | 27.7% | 29.3% |
| Female | 72.3% | 70.7% |
| Total | 100.0% | 100.0% |
| *Family Income* | | |
| To $25,999 | 11.8% | 10.7% |
| $26,000 to $49,999 | 20.7% | 19.7% |
| $50,000 to $74,999 | 19.2% | 19.5% |
| $75,000 to $99,999 | 11.1% | 10.9% |
| $100,000 to $124,999 | 6.3% | 6.3% |
| $125,000 to 149,999 | 0.4% | 0.6% |
| $150,000 to $174,999 | 1.5% | 2.3% |
| $175,000 + | 0.4% | 2.3% |
| Don't Know | 28.8% | 27.7% |
| Total | 100.0% | 100.0% |
| *Average Credits* | 77.9 | 76.5 |
| *GPA* | 5.72 | 5.74 |
| *Total Cases* | 278 | 492 |

family income, number of completed credits, and GPA. In essence, the 278 students who completed all three surveys can be seen as fairly representative of students who entered Arts in 1994 who were still enrolled at the end of third year in 1997.

## Conclusion

Information on students that will be used in an analysis of race, gender, and the student experience was collected at five points in time: in the summer of 1994 before students began their classes and at the end of 1995, 1996, 1997, and 1998. There is reason to believe that with the exception of students from Arts, about whom we are uncertain, students who completed the four end-of-year surveys are fairly representative of those who entered York in 1994 and who were still enrolled in 1998. Even if the 1998 Arts sample is unrepresentative, the analyses planned will minimize the possible effect of the unrepresentative nature of the Arts survey.

# Chapter 3: Who Goes to University and Why?

## Introduction

In Chapter 1 it was seen that students' from different backgrounds have the potential to experience the university in different ways. Because of this possibility, it is important to have a general idea of the origins of York students. As a result, this chapter will focus on the demographic characteristics of students who entered York in 1994 and their reasons for wanting a university education.

Although similar data on students entering other universities in Canada is limited, where possible, comparisons will be made with students going to other post-secondary institutions. When such comparisons are made, it is seen that students entering York in many respects are comparable to students entering other universities. As a result, it is likely that, as a minimum, the experiences of York students are similar to those of their peers in other large, urban commuter universities.

## Who Goes to University?

Historically, in English Canada, the few universities that existed were the preserve middle- and upper-class White Anglo-Celtic Protestant males (Axelrod, 1990:32,162). Starting in the 1960s, however, the number of Canadian universities increased dramatically as did the number of female, low income, and immigrant students. By the 1980s the participation of females in the 18 to 21 age group in higher education actually surpassed that of males (AUCC, 1996:41). Information on the family income of students is harder to obtain but there is no doubt that in many universities the sons and daughters of the relatively well-off began sharing their classrooms with students of working-class and immigrant origins.

In 1993, the year prior to the beginning of the York study, students entering the University of Calgary, King's College the University of Western Ontario, the University of Toronto, Nippissing College, Ryerson Polytechnic University, the University of Guelph, and Brock University all filled out the same questionnaire, distributed by the Student Environment Group at the University of Guelph, in which they were asked various questions related to their high school experiences, backgrounds, aspirations, and so on. While confidentiality of the data makes it impossible to present survey results for individual universities, information on the seven institutions can be presented in the aggregate.[2] Although data collected in this fashion cannot be used to typify all Canadian universities, they represent the largest single block of detailed information available on students entering Canadian universities in 1993. These institutions will be referred to collectively as 'The Group of Seven'. Data from these and other universities suggest considerable overall socio-economic and racial diversity within and between different universities. This does not mean that *all* universities have a diverse student body.

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[2] I am grateful to Brian Pettigrew of the University of Guelph for making these data available for this chapter.

## Family Income

Information on the family incomes of students entering the Group of Seven in 1993 are surprising. Twenty three percent come from families where the annual income is less than $30,000. (The average Canadian family income in 1993 was approximately $50,000). A further 26% come from families in which it is estimated that parental income is between $30,000 and $49,999. Those whose parents earn from $50,000 to $74,999 make up 26% of first year students. The families of the remaining 25% earn $75,000 or more.

The summer survey described in the previous chapter carried out of students coming to York University in 1994 shows that low income students also are well represented at York. Of students who replied to the summer survey, 21% come from families earning less than $26,000 per year. Among Group of Seven students, 23% come from families earning less than $30,000 a year.

At York, an additional 28% of students entering in 1994 were from families with incomes between $26,000 and $49,999 per year; 27% from families earning between $50,000 and $74,999; and 13% came from families with annual incomes between $75,000 and $99,999 per annum. Only 12% of York's students in 1994 came from families where the annual family income was $100,000 or more. If only the range $75,000 or more is examined, it is found that as many York students as Group of Seven students (25% in each case) came from this relatively high income category.

## Parental Education

At Dalhousie University, 49% of students in a first year survey conducted in February 1988 said that either their father or mother attended university (Christie, 1988: Table 1). In 1993, 37% of Group of Seven fathers, and 26% of Group of Seven mothers, had completed university. In 1994 the figures for York students' fathers and mothers who had university degrees were only 29% and 19% respectively. In essence, levels of parental education may be lower for York than for students in other universities.

## Gender

As mentioned earlier, for some time the number of female students in Canadian undergraduate programs have outnumbered males. This is evident in enrollment patterns in both the Group of Seven and York University. In the former, 60% of students entering first year in 1993 were female; in the latter, 62%.

## Ethno-Racial Origin

In recent years, increasing numbers of non-Whites from the third world have immigrated to Canada. It is not surprising, therefore, that in 1993 only 65% of students entering the Group of Seven considered themselves White. Nineteen percent defined themselves as East Asian, 6% as South Asian, 3% as South East Asian, 1% as North American Indian, 2% as Black, and 4% as 'other'. By comparison, at the University of Victoria, a 1992 survey revealed that 90% of entering students considered themselves White. A small minority, 7%, were Asian (U of Victoria, 1992). In 1994, approximately 68% of students entering York could be defined as White.

## Language

Additional evidence of diversity in some Canadian universities can be seen in language usage. For example, of the entering class in 1994 at the University of Toronto, only half of the students had English as a first language; moreover, discipline/college based differences were considerable: whereas the first language of 2/3 of students in Victoria College was English, in Engineering it was only 1/3 (Kirkness, 1994:3). Among students entering the Group of Seven, in 1993, 68% learned English as a first language. Sixty percent of the York students stated that they spoke English in their households while growing up.

Two general conclusions can be drawn from the foregoing information. First, overall, there is considerable diversity in Canadian universities; however, there are some universities that are relatively homogeneous on some dimensions. Second, while there are some differences, students who entered York in 1994 are more or less comparable to those entering Group of Seven universities in the previous year in terms of family income, the percentage who are White, and the extent to which English was spoken at home. The only area in which there is a difference is in the slightly lower number of parents of York students who completed university. This possibility aside, in general, York students are generally comparable to their peers in Group of Seven, and possibly other Canadian universities.

## Place of Residence

For some students, going to university means leaving home and friends. Among 1993 Group of Seven entrants, 44% of students left home to attend university.

Among this group, the largest single number, 28%, reported that they would be in residence. Of those who did not leave home, 56% stated that they would be living with their parents for the first year. Even those who did leave home, however, did not go far. For example, 63% of all students (not just those who left home) were attending university 60 or fewer kilometres from their permanent residence. At the other extreme, only 6% were in a university 500 or more kilometres from home.

Data from other universities indicate that the situation of Group of Seven students is typical. For example, 53% of students at Dalhousie came from the Halifax area and 42% reported living at home with their parents (Christie, 1988:1). At the University of Manitoba 66% of first year students resided with their parents (U of Manitoba, Sept. 1991). Sixty one percent of first year students at the University of Victoria resided with their mothers and/or fathers (U of Victoria, 1992). Roughly a similar number of students at the University of Alberta, 67%, also lived at home (Holdaway and Kelloway, 1987:60). By way of comparison, approximately 90% of first year students at Queen's, and 68% of those at the University of Guelph were in residence (Knox, 1991:42; Gilbert, Survey 1, 1986).

In terms of place of residence, students who entered York in 1994 were more like those at the University of Manitoba, the University of Victoria, and the University of Alberta than those at Queens' University or the University of Guelph. Overall, 69% lived at home with their parents and only 19% lived in residence. The remainder lived off-campus in a variety of arrangements. In essence, York is a commuter university.

## The Selection Process

In general, students can be viewed as progressing through three stages before entering university (Hossler, Braxton, and Coopersmith, 1989; McDonough, 1997). In the *predisposition* stage, whether or not to attend university is decided. For some students, such as those from families where both parents attended university, non-attendance has never been considered an option and the predisposition stage is conceptually irrelevant. In the *search* stage, students initiate enquiries about various options available to them and begin to focus on specific institutions. In the *choice* stage, students finally decide on a specific university.

Unfortunately, available Canadian data do not shed much light on how and when students decide to go to university and/or how they choose their majors; nonetheless, information from York, the University of Calgary, and the University of Victoria indicates that while the decision to attend university may occur long before first year, a decision regarding which university to attend may occur much later. To explain, at the University of Victoria, 59% of the entering class of 1992 stated that they had decided to go to university before entering high school (U. of Victoria, 1992). In a study of first year chemistry students at the University of Calgary, researchers discovered that 41% of students decided that chemistry would be their university major while they were still in high school; 17% had made up their minds in junior high school (Donaldson and Dixon, 1993:36).

When it came to deciding which university to attend, only 32% had decided on York by November of the previous year, when applications were submitted to Ontario universities. Between then and April of 1994, an additional 41% made up their minds to attend York. During June 1994, the month in which students received acceptances from Ontario universities, an additional 24% decided on York. The remainder made decisions in July. Clearly, from a recruitment point of view, the period between November and June is crucial. It is interesting to note that in making their decision only 3% thought *Macleans* annual ranking of universities was very useful.

## Reasons for University

Having made their final choice of which university to attend, independent of size of university, location, and where students live, when asked why they go to university in general, and to their chosen university in particular, students right across the country give roughly the same answers. Students go to university for intellectual development and so that they will be able to get a job on graduation; moreover, in many cases there is little difference in emphasis that is given to these two objectives. Students pick particular universities usually because of the reputation of the institution or because of the programs offered. The frequency, and consistency, with which these latter answers are given suggests that students may rationalize their choices in common terms.

At the University of Guelph, Gilbert (Survey 1, 1986) found information that supports the above contention. In a study conducted in the first semester in 1986 he discovered that 83% of males and 86% of females said that obtaining knowledge and skills applicable to a career was an important or very important reason for going to university. By way of contrast, only 61% of males and 70% of females said that intellectual development was an important or very important reason for being there.

Similar findings come from a first year survey at Dalhousie. There, 82% of students in first year reported going to university to become a better educated person. An equal percentage were at Dalhousie to qualify for a high-level occupation (Christie, 1988: Table 3). At the University of Alberta a February 1985 survey found that 68% of entering students said that preparing for an interesting career was a very important reason for going to university. Fewer, 41%, were in attendance to obtain a good general education (Holdaway and Kelloway, 1987:52-3). Figures from the University of Toronto are comparable. Eighty percent of students entering in 1994 said that getting a good job was one of the reasons they were there. Seventy nine percent also stated that learning more about something that interested them was a reason for going to university (Kirkness, 1994:5). Explanations for going to Mount Saint Vincent were the same. In a September 1987 study it was found that on a five point scale entering students gave 4.8 to getting a job as a reason for university attendance; to learn a specific topic scored 4.3 (Murray et al., 1990:10).

Reasons given by the York cohort of 1994 for going to university were similar to those of students entering other universities. Eighty three percent agreed that increasing the chances of finding an acceptable job was one of the reasons they wanted a university education. An identical number also mentioned that they were going to university because of the importance of getting an education. Sixty nine percent noted that personal development was one of the reasons that they were attending university.

## Choice of a Particular University

In terms of choices of specific universities, 56% of students entering the Group of Seven in 1993 said that a good academic reputation was very important in their decision. Academic reputation of the university was also mentioned by 67% of first year Dalhousie students when explaining why they went to that institution (Christie, 1988: Table 4). A similar percentage of University of Toronto students, 66%, noted academic reputation as a reason for their choice (Kirkness, 1994:5). Among the 1994 cohort entering York University, 61% said that the overall academic reputation of the university was a somewhat or very important consideration in their decision to come to York. A slightly higher 66% stated that the academic reputation of the program they were interested in was somewhat or very important.

While the foregoing information highlights the importance that students give to academic reputation when deciding which university to attend, it may be misleading to assume a 'rational choice' process in which students decide which university to attend only after weighing the advantages and disadvantages of all universities to which they are accepted. The fact that approximately only 50% of students entering York in 1994 could afford to go out-of-town supports this contention.

## Importance of a Degree

In general, the vast majority of students entering universities believe that it is important to obtain a university degree. For example, 65% of Group of Seven students said that obtaining a degree was essential. Similarly, at the University of Guelph, 74% of males, and 78% of females in the first semester in 1986 thought that a university degree was either extremely or very important (Gilbert, Survey 1, 1986).

In the summer 1994 survey at York University, only 44% of students stated that it was very or extremely important to obtain a degree from York University. (Surveys carried out at the end of first year, however, show that 90% of students felt that it was very or extremely important to get a university degree.) A larger

62% stated that it was very or extremely important to obtain a degree in the faculty in which they intended to enrol. In essence, getting a degree was the biggest priority; getting it from the faculty in which the student wanted to enrol was second; obtaining a York degree was third in priority.

## Academic Plans

Information from several universities indicates that at entry students have ambitious plans. For example, among Group of Seven entrants, in 1993, 50% expressed the intention of obtaining a Master's or a Doctor's degree! An almost identical number at the University of Guelph had similar intentions in 1986 (Gilbert, Survey 1, 1986). Among students entering York in 1994, 29% aspired to a master's, and 10% to a doctoral degree.

## Conclusion

Having examined various demographic characteristics of first year students in Canadian universities, it can be argued that along many dimensions students at York are *generally* comparable to (and as diverse as) those in some other Canadian universities in terms of background and reasons for going to university. For example, the limited information that is available suggests that the parental incomes of York students are not that different from those of students in other institutions and, like students elsewhere, students at York want to go to university so that they can get a job as well as for intellectual reasons.

Despite these similarities, it is important to emphasize that York is primarily a large commuter institution in a big Canadian city. This point is worth emphasizing because of the probability that students in large commuter universities in big cities have experiences that are different from those of students in small and/or residential universities located in small cities or towns. As a result, while it might be legitimate to assume that the experiences of students at York would be comparable to those of students in other commuter universities in large cities, such as Laval, Toronto, Alberta, or Simon Fraser, it could be misleading to attempt to generalize findings from the current study of York to small places such as Mount Allison or Trent that are located in a town and small city respectively.

# Chapter 4: Course Work and Classroom Experiences

## Introduction

Having examined the types of students who go to Canadian universities in general, York University in particular, and the reasons students give for pursuing a university degree, it is appropriate to examine their course work and classroom experiences. As I showed in the Introduction, what students learn is related to their curricular patterns and course work as well as to specific classroom experiences. As a result, this chapter will deal with the curricular patterns and course work (via faculty of enrollment) and classroom experiences of students at York University from 1994 to 1998.

Attention will focus on how students view various characteristics of their professors; how involved they are in their studies; students' perceptions of the inclusion of different perspectives in their courses; the amount of control students feel they have over their studies; problems with various aspects of their classes; and students' overall satisfaction with their courses and programs. For each of these issues, we will examine change in students' experiences from one year to the next, and differences in experiences based on family income, ethno-racial origin, gender, and faculty of enrollment. Particular attention will be paid to the possibility of 'chilly climates' for identifiable groups of students. The overall logic underlying the investigation is that outlined in Diagram 1 in the Introduction.

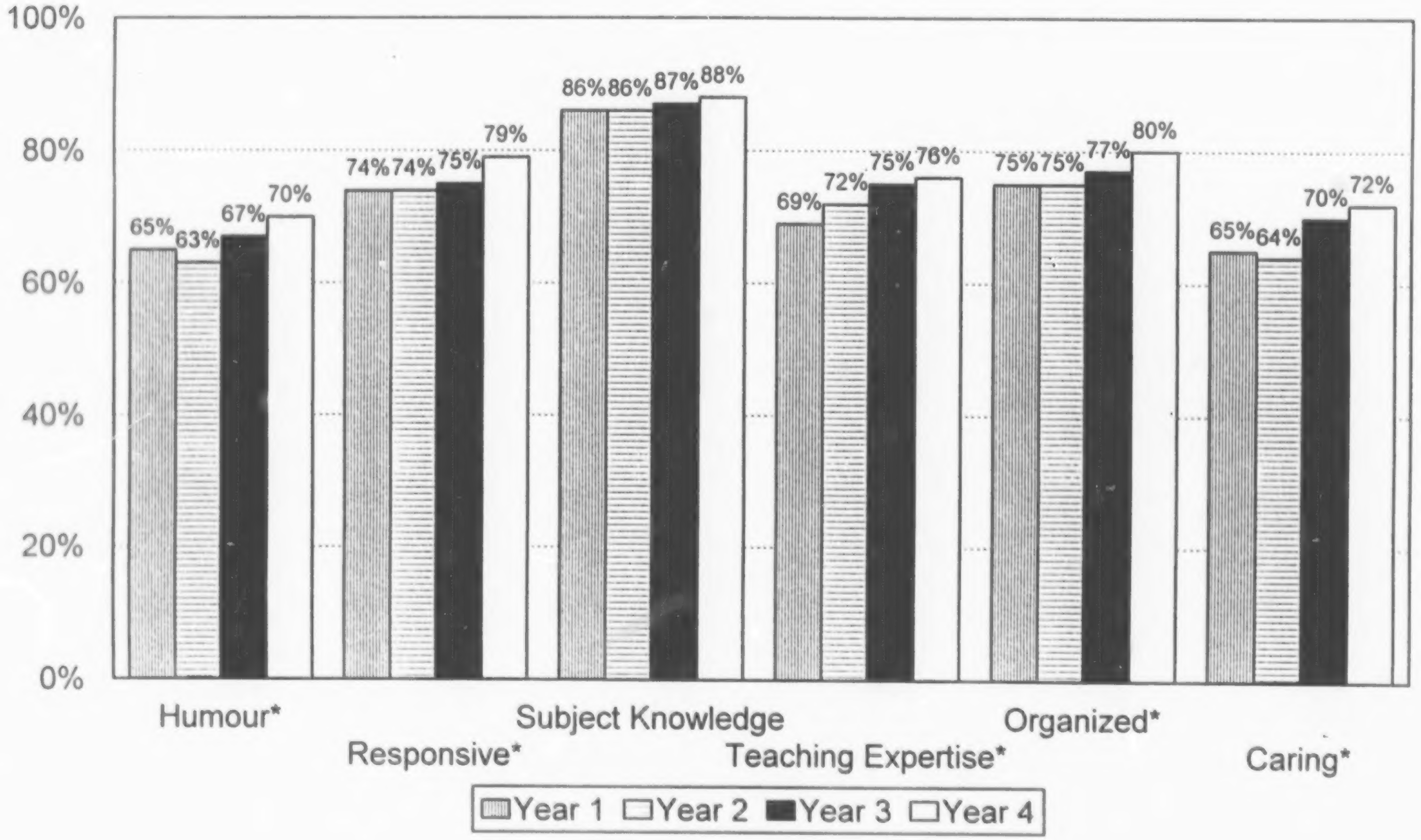
The primary statistical vehicle that will be used in analysing the information is 'repeated measures analysis of variance' made available through the Statistical Package for the Social Sciences (SPSS). In using this procedure, I had to decide whether I was concerned most with readers who were statistically inclined or with more general readers. I decided in favour of the latter. As a result, information presented in the graphs and tables summarizing the findings of the study may not always be sufficient to meet the needs of specialists in statistical methodology.

## The 'Good' Professor

In the Introduction to this report it was shown that an effective university instructor has a number of definable characteristics (Cohen, 1981; Pascarella and Terenzini, 1991:94). In general, she has command of the subject matter; has the ability to develop a rapport with students; is organized; is not unrealistic in terms of demands; encourages involvement in class activities; and provides students with adequate feedback on their progress. Pascarella and Associates (1996) recently found that of this list of characteristics, a professor's organizing abilities are particularly important. After adjustments had been made for pre-entry characteristics, at the end of first year, those who reported that their instructors were organized and prepared demonstrated greater cognitive gains on a number of tests than students reporting less well organized and prepared instructors.

In a study of first-year students' diaries at the University of Guelph, Benjamin (1990:51) found that students identified 'good' professors in terms of: "technical expertise (e.g., pacing, use of overheads, variety in teaching methods);

Graph 4:1 Percentage of Professors with Various Characteristics



*F statistically significant.

knowledge (e.g., superior grasp of subject matter); organization (e.g., order of presentation, detailed, complete); responsiveness (e.g., encourages questions, enthusiasm); caring (e.g., warmth, effort to convey information, informality, comfort in dealing one-to-one); and humour". Most of the characteristics identified by the students in Benjamin's study are similar to those discussed above.

## Changes Over Time

In the current study, students were asked questions about their professors based on Benjamin's findings. For example, "How many of the instructors in the courses in which you are currently enrolled would you say have adequate technical expertise with regard to teaching (e.g., go at the right speed, use effective teaching methods, etc.)?" The answer given by the student in this question was divided by the number of courses in which she was enrolled, as obtained from administrative records, and multiplied by 100 to obtain a percentage figure. The same procedure was followed for questions focussing on the other characteristics identified by Benjamin. Graph 4:1 summarizes changes in these measures from one year to the next after adjustments have been made for family income, ethno-racial origin, gender, and faculty of enrollment.

A number of observations can be drawn from the graph. First, over all four years, students believe that their professors have a good grasp of their subjects. At the end of first year students stated that 86% of their professors knew their subject matter well. By fourth year this figure had crept up slightly to 88% but the change was not statistically significant. In essence, there is no difference in students' perceptions of their professors' subject matter expertise between first and fourth years.

Second, students believe that their professors are fairly well-organized (this is important in view of the finding that professors being organized contributes to students' cognitive development). Moreover, there is an increase in the number of professors who are viewed as organized, from 75% at the end of first year to 80% at the end of fourth. This overall increase is statistically significant at the .011 level.

Third, there is an increase in the number of professors viewed as responsive from 74% at the end of year one to 79% at the end of fourth year. This increase is statistically significant at the .000 level.

Fourth, the percentage of professors students view as having teaching expertise goes from 69% at the end of the first year to 76% at the end of fourth. This change is statistically significant at the .002 level.

Fifth, there is a change in the number of professors viewed as caring. At the end of first year only 65% of professors were seen as having this characteristic. By the end of fourth year the number had increased to 72%. Moreover, the change was statistically significant at the .003 level.

Sixth, at the end of year one, 65% of professors were viewed as having a sense of humour. This figure increased to 70% by the final survey in the study. The overall difference is significant at the .004 level.

Overall, these observations suggest that there are sightly more professors at the end of fourth year who are viewed as having desirable characteristics than at the end of first year. As a result, we can conclude that there is a slight improvement between first and fourth years in some of the classroom experiences of students at

York University. The general magnitude of these changes is comparable to that observed in a smaller study by Terenzini and Wright (1987).

## Comparisons Among Groups

As seen in the Introduction to the report, in the United States, differences are sometimes found in student experiences that are related to family income, ethno-racial origin, and gender. In this study analyses were carried out to assess the *overall* impact over a four year period of each of these variables and faculty of enrollment on perceptions of the percentage of faculty members having desirable characteristics. (These 'between-subject effects' are measured in a one-way analysis of variance where the dependent variable is defined as the mean of: $(X_1 + X_2 + X_3 + X_4)$ In these analyses, means are calculated for factors (such as family income) after the effects of other variables (such as ethno-racial origin, gender, and faculty of enrollment) have been adjusted or controlled. In Table 4:1, means adjusted in this way are presented for professors' characteristics identified in Graph 1. For example, figures on family income have already been adjusted for the effects of other factors, in the table, like ethno-racial origin. The same goes for each of the other factors.

In order to reduce the amount of information readers must manage, only statistically significant differences are presented in Table 4:1 (this practice will be followed in other tables as well). For example, there is no information presented for family income in the 'humour' column because there were no statistically significant differences in perceptions of the number of faculty who had a sense of humour that were related to family income. In essence, in this and other cases for which data are not presented, the assumption is that the mean as recorded in the first row of the table is the best estimate of the percentage of professors seen as having the characteristic under discussion.

Table 4:1 Differences in Professors' Classroom Characteristics by Students' Family Income, Ethno-Racial Origin, Gender, and Faculty

| | Humor | Sig | Responsiveness | Sig | Subject knowledge | Sig | Teaching expertise | Sig | Organized | Sig | Caring | Sig |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| *Mean* | 66% | | 75% | | 87% | | 73% | | 77% | | 68% | |
| | | | | | | | | | | | | |
| *Family Income* | | | | | | | | | | | | |
| LT $26K | | | | | 89% | | | | 79% | | | |
| $26K to $50K | | | | | 85% | 019 | | | 73% | .018 | | |
| $51K to $75K | | | | | 90% | | | | 81% | | | |
| $76K to $100K | | | | | 80% | | | | 73% | | | |
| GT $100K | | | | | 87% | | | | 77% | | | |
| | | | | | | | | | | | | |
| *Ethno-Racial Origin* | | | | | | | | | | | | |
| Black | 77% | | 82% | | 92% | | 76% | | 84% | | 75% | |
| South Asian | 54% | | 65% | | 84% | | 70% | | 68% | | 55% | |
| Chinese | 60% | 010 | 71% | 010 | 81% | .007 | 66% | 001 | 71% | 029 | 63% | .012 |
| Other non-European | 67% | | 75% | | 88% | | 75% | | 79% | | 68% | |
| European | 70% | | 79% | | 89% | | 76% | | 79% | | 72% | |
| | | | | | | | | | | | | |
| *Faculty* | | | | | | | | | | | | |
| SSB | 58% | | 76% | | | | | | | | 66% | |
| Arts | 68% | | 75% | | | | | | | | 69% | |
| ES | 64% | 001 | 71% | 010 | | | | | | | 65% | .013 |
| Fine Arts | 80% | | 83% | | | | | | | | 75% | |
| Glendon | 72% | | 81% | | | | | | | | 75% | |
| Science | 58% | | 68% | | | | | | | | 59% | |

Over the four year period of the study, the means in the first row of the table indicate that 87% of professors were viewed as knowing their subject matter well. Seventy-seven percent were thought to be organized and 75% responsive to students' needs. Seventy-three percent of professors were viewed as having sufficient teaching expertise and 68% were seen as caring. Sixty-six percent were thought to have a sense of humour. The remaining information in Table 4:1 indicates that after adjustments for other factors in the table, students' perceptions of their professors on these dimensions varied by family income, ethno-racial origin, and faculty of enrollment, but not by gender.

It can be seen from the table that family income affects students' views of how well professors know their subjects and the extent to which they are organized. The only consistent pattern that emerges from these two cases, however, is that students from families with incomes between $26,000 and $50,000 are sightly more likely than students from other family income groups to view their professors as knowledgeable and organized (90% and 81% respectively). As a result, despite statistical significance, not much can be said about the relationship between family income and the perceived knowledge and organization of professors.

Patterns are easier to see when ethno-racial origin is examined. First, ethno-racial origin has a statistically significant impact on students' perception of all professorial characteristics under examination. Second, students who are Black perceive more of their professors as having desirable characteristics than any other group. For example, Black students view 84% of their professors as organized as compared to only 68% for students of South Asian origin, 71% for Chinese origin students, and 79% for each of students of 'other' non-European and European origins. Third, students of South Asian and Chinese origin view the least number of professors as having desirable characteristics. For example, while Black students believe that 77% of their professors have a sense of humour, South Asian and Chinese origin students see only 54% and 60% respectively of their professors as having a sense of humour.

Overall, figures such as these suggest that while particularly Black students experience their professors relatively positively, the opposite is true of students of South Asian and Chinese origins. On the basis of these data it is possible to say that some ethno-racial groups experience their classrooms as relatively chilly; however, it is not true that the climate is warm only for White students.

As noted earlier, there are no statistically significant differences based on gender. This finding suggests that at York some aspects of the classroom are not chilly for female compared to male students. Other findings will confirm this impression.

As indicated earlier, while there is overlap in the programs offered by Arts and Glendon, in this study it will be assumed that students in various faculties experience different course work and curricular patterns. Independent of the legitimacy of this assumption, it is evident from Table 4:1 that the humour, responsiveness, and caring of professors varies considerably by faculty of enrollment. Moreover, there are consistencies that emerge in evaluations of these three characteristics. Most noticeable, perhaps, is the fact that students in Science view the least number of their professors as having a sense of humour and as being responsive and caring. (Differences on humour, responsiveness, and caring are significant at the .001, .010, and .013 levels respectively.) While the overall mean percentages for these three attributes are 66%, 75%, and 68% respectively, the figures in Science are only 58%, 68%, and 59%.

By way of comparison, students in Fine Arts have the most positive evaluations of their professors. They see 88% of their faculty as having a sense of humour, 83% as responsive, and 75% as caring. While Glendon students see fewer of their professors than Fine Arts students as having a sese of humour (72% compared to 80%), Glendon students' estimates of the number of responsive (81%) and caring (75%) professors are comparable to those in Fine Arts. Arts students view an average number of faculty as having these characteristics.

Given the small size of the faculty, it is surprising that students enrolled in Environmental Studies see relatively few of their professors as having a sense of humour (64%), as responsive (71%), and as caring (65%). While faculty in the Schulich School of Business are also viewed as being relatively humourless (only 58% have a sense of humour), the numbers who are responsive (76%) and caring (66%) are more or less average.

## Conclusion

There are three general conclusions that can be drawn from the information on professors' characteristics. First, over time, students tend to view more of their professors as having a sense of humour, as being responsive and knowledgeable in their fields, as having teaching expertise, being organized, and as caring about their students. The overall magnitude of change, however, is not great. Second, the way in which students from various income backgrounds perceive their professors does not vary systematically. Third, there are differences in the ways in which students of different ethno-racial origins view their professors, but these differences do not divide on the basis of students being White or non-White. Black students are most likely to view their professors positively and South Asian and Chinese students are the least likely to have positive opinions of their professors. Fourth, the way in which students view their professors does not vary by gender. Fifth, students in Science are the least likely, and students in Fine Arts the most likely, to hold positive views of their professors.

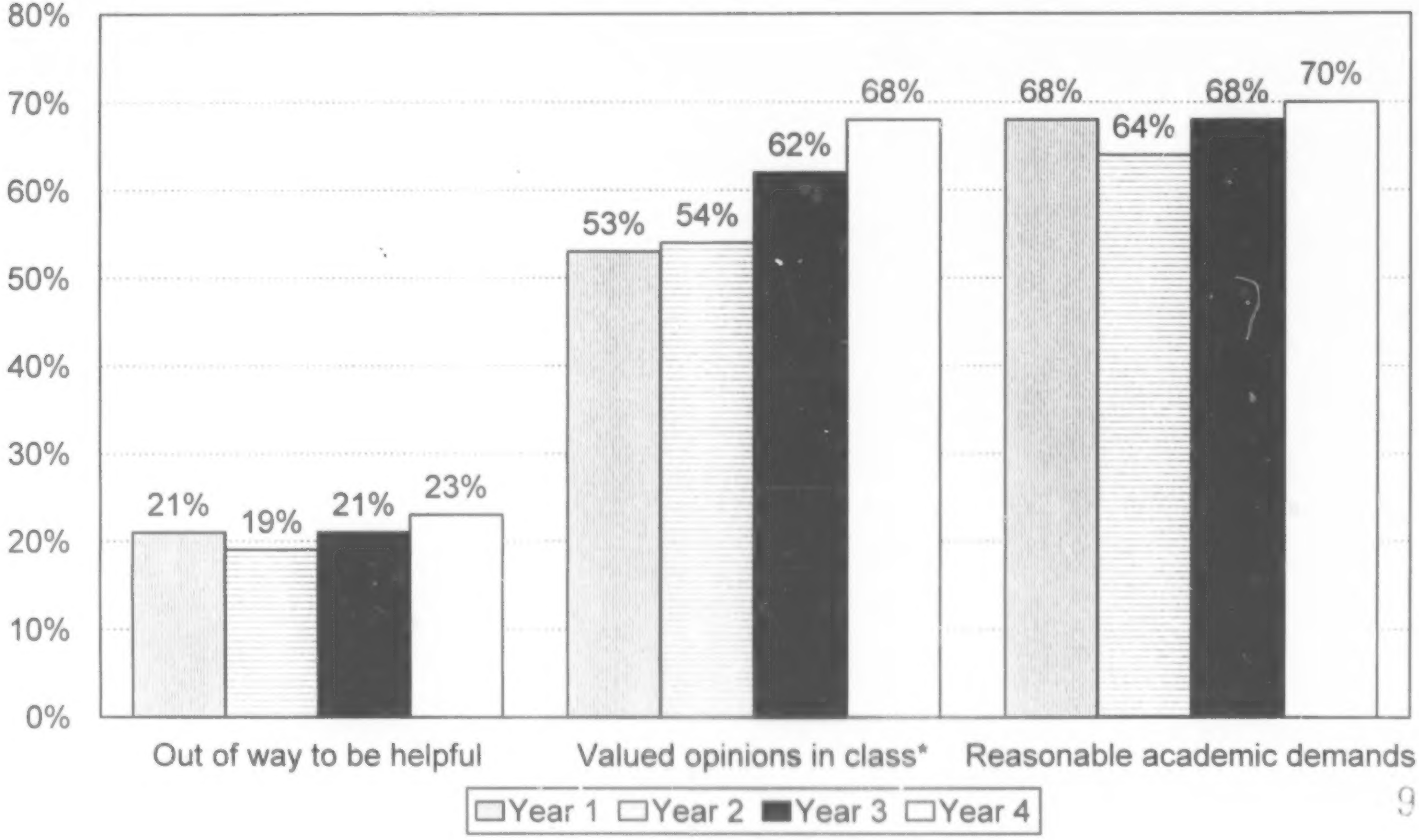
## Other Professorial Characteristics

In addition to commenting on the extent to which their instructors had the characteristics of 'good' professors as identified by students in Benjamin's study, York students were asked questions on the extent to which their professors went out of their way to be helpful; the degree to which students' opinions were valued in class; the reasonableness of academic demands; the extent to which academic advisors took an interest in students' development; and the degree to which students thought that they could rely on at least one faculty member if they had problems. Information on each of these factors, after adjustments have been made for family income, ethno-racial origin, gender, and faculty of enrollment, is summarized in Graphs 4:2a and 4:2b.

### Changes Over Time

In any given year, data in Graph 4:2a indicate that very few students believe that faculty go out of their way to help them. Moreover, there is no statistically significant difference in the number of faculty at the end of first (21%) and fourth (23%) years who go out of their way to help students. By comparison, in every year students feel that a majority of their faculty value their opinions in class and the numbers of faculty doing so increases from 53% in first year to 68% in fourth year. This difference is statistically significant at the .000 level. The graph also shows that in any given year the majority of students believe that the demands of faculty are reasonable; moreover, there is no statistically significant increase on this dimension between first (68%) and fourth (70%) years.

Graph 4:2a Other Professorial Characteristics



*F statistically significant.

In Graph 4:2b information can be found on faculty advisors and the helpfulness of faculty. In this instance students were asked if they agreed that faculty advisors took an interest in students and whether or not they agreed that there was at least one faculty member to whom they could turn for help. Response options ranged from 1 meaning 'strongly disagree' to 5 indicating 'strongly agree'.

For each study year, it can be seen that students do not agree that faculty advisors take an interest in students. Moreover, changes between first (2.73) and final (2.70) years are very small and not statistically significant. It must be noted, however, that this question was only relevant to 35% of the survey participants who actually had academic advisors.

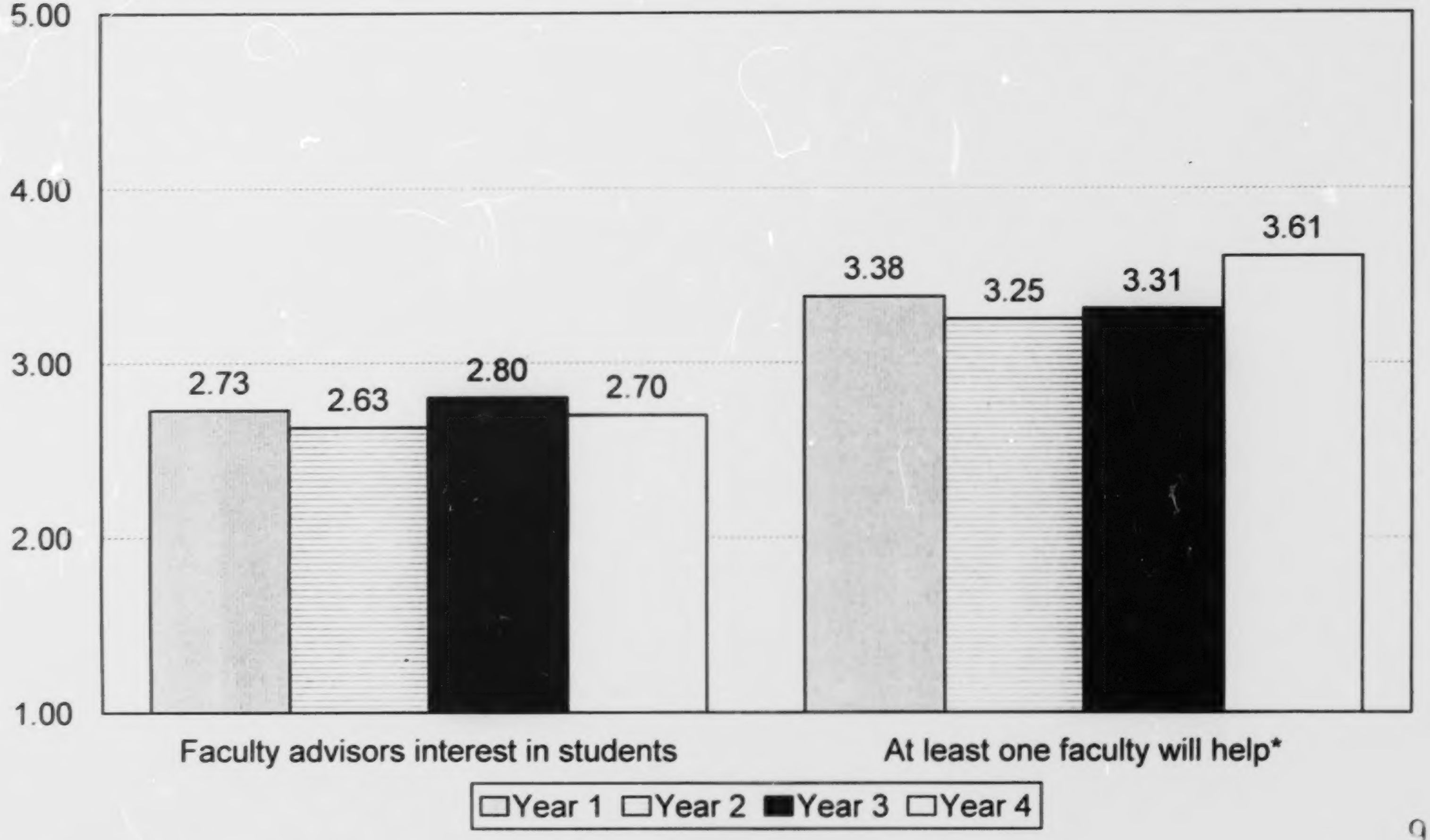
Graph 4:2b also shows that in any year students are somewhat likely to agree that there is at least one faculty member to whom they can turn for help if they have a problem. Moreover, there is a slight irregular increase between first (3.38) and fourth (3.61) year on this dimension. This overall difference is statistically significant at the .015 level.

## Comparisons Among Groups

Differences based on family income, ethno-racial origin, gender, and faculty of enrollment for the entire four surveys are outlined in Table 4:2. Once again, only statistically significant findings are reported - the mean can be taken as the best estimate for findings that are not statistically significant. Also, figures for any given factor have been adjusted for the influence of other factors in the table.

As demonstrated by the absence of table data on family income, students' perceptions of how willing professors are to go out of their way to be of

Graph 4:2b Other Professorial Characteristics



1 = strongly disagree; 5 = strongly agree. *F statistically significant.

Table 4:2 Differences in Other Professorial Characteristics by Students' Ethno-Racial Origin, Gender, and Faculty

| | Out of way helpful | Sig. | Value opinion | Sig. | Reasonable demands | Sig. | Advisors interested | Sig. | At least one faculty will help | Sig. |
|---|---|---|---|---|---|---|---|---|---|---|
| *Mean* | 21% | | 59% | | 68% | | 2.72 | | 3.39 | |
| | | | | | | | | | | |
| *Ethno-Racial Origin* | | | | | | | | | | |
| Black | | | 65% | | | | | | | |
| South Asian | | | 53% | | | | | | | |
| Chinese | | | 54% | .045 | | | | | | |
| Other non-European | | | 60% | | | | | | | |
| European | | | 62% | | | | | | | |
| | | | | | | | | | | |
| *Gender* | | | | | | | | | | |
| Male | | | | | 69% | .023 | | | 3.15 | .023 |
| Female | | | | | 66% | | | | 3.56 | |
| | | | | | | | | | | |
| *Faculty* | | | | | | | | | | |
| SSB | | | | | 66% | | | | | |
| Arts | | | | | 68% | | | | | |
| ES | | | | | 67% | .035 | | | | |
| Fine Arts | | | | | 75% | | | | | |
| Glendon | | | | | 74% | | | | | |
| Science | | | | | 57% | | | | | |

assistance; the extent to which professors value the opinions of students and make reasonable academic demands; the degree to which students see their faculty advisors as interested in their development; and their belief that if they had a problem there was at least one faculty member to whom they could turn for help, do not vary by income. As a result, we can conclude that family income does not differentially privilege the experiences of students on the dimensions under discussion.

By comparison, table data show that ethno-racial origin structures students' perceptions of how professors value their opinions in class. On this dimension, Black students view more of their professors (65%) valuing their opinions than students of any other background. European background (62%) and other non-European (60%) background students also view a greater than average (59%) number of their professors as valuing students' opinions. Students of Chinese and South Asian origins view the least number of their professors (54% and 53% respectively) as valuing their opinions. Taken with earlier findings, these observations indicate a relatively chilly classroom experience on the part of Chinese and South Asian origin students. This does not mean that students with these origins are treated differently than others. It may be that language difficulties or cultural differences have negative implications for classroom experiences.

Table data show that gender structures perceptions of the extent to which academic demands are reasonable and the belief that there is at least one faculty member to whom the students can turn for help. Males see more of their instructors (69%) than females (66%) having academic demands that are reasonable; however, females are more likely than males (scores of 3.56 and 3.15 respectively) to feel that they can rely on a faculty member for help (note that the significance level for each of measures is .023 - it is not a typo).

Finally, faculty of enrollment structures students' perceptions of the reasonableness of academic demands made by professors. In Fine Arts and Glendon College, 75% and 74% respectively of professors are viewed as being reasonable in their demands. Arts students view 68% of their professors as reasonable in this regard. Students in SSB (66%) and Environmental Studies (67%) view fewer than the average number (68%) of their professors having reasonable demands. Professors in Science (57%) are seen as being the least reasonable.

## Conclusion

There are five general conclusions that can be made on the basis of evidence presented in this section. First, with the exception of the degree to which students feel that their opinions are valued in class and the belief that there is at least one faculty member to whom they can turn for help, there is little change in the way in which students perceive their professors between first and fourth year. In essence, from the students' point of view, 'things get better' in only a couple of areas.

Second, students' perceptions of professors' characteristics covered in this section are not related to family income. In essence, family income has no impact on the way students experience the classroom.

Third, with the exception of the extent to which students think professors value their opinions in classes, ethno-racial origin has little to do with views of professors' characteristics. For this one statistically significant exception, it is clear that students of Chinese and South Asian origin have less positive experiences than others.

Fourth, gender structures experiences of faculty demands and the degree to which at least one faculty member can be relied on for help; however, the first comparison favours males and the second females. Once again, it cannot be concluded that the climate for females is relatively chilly.

Fifth, faculty of enrollment only affects perceptions of the reasonableness of academic demands. As in the previous section, comparisons favour faculty in Fine Arts and Glendon most, and those in Science least.

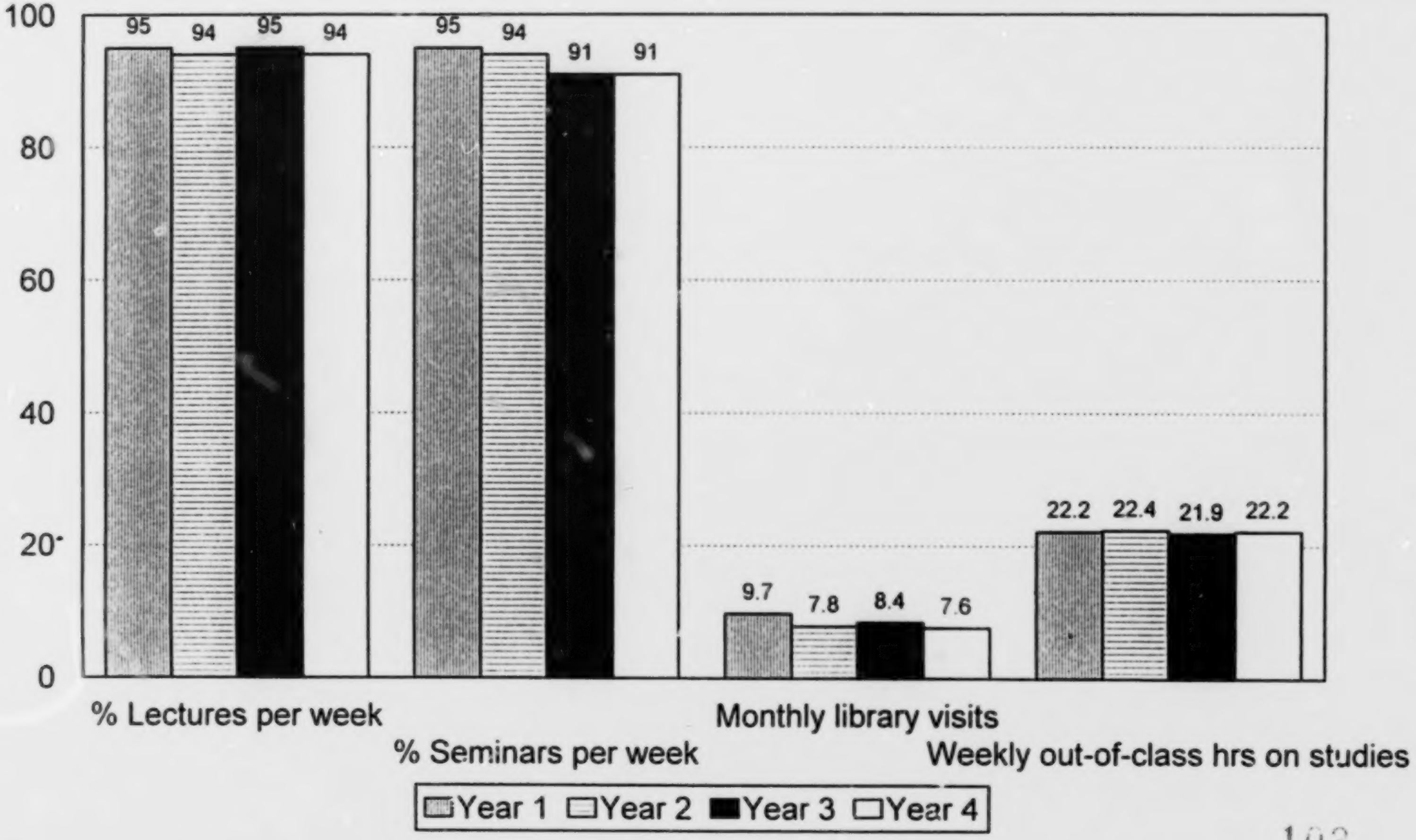
## Participation in Educational Activities

George Kuh (1995:125) remarks that, "the more time and energy students expend in educationally purposeful activities, the more they benefit." Quite simply, student learning is directly related to the amount of time and energy they invest in various aspects of university life. In a commuter university such as York, where the amount of extra-curricular activity is low, involvement in classroom related activities is particularly important. Because of the relevance of course related involvement to learning in commuter universities, in the current study, it is important to examine the degree to which students are involved in formal academic activities; if the amount of time students spend on their studies changes over time; and if participation in course related activities varies by family income, ethno-racial origin, gender, and faculty of enrollment.

### Changes Over Time

Information presented in Graph 4:3 in which adjustments have been made for family income, ethno-racial origin, gender, and faculty indicates that there is little variation from year to year in the percentage of lectures attended by York students. At the end of year one they report having attended 95% of their

Graph 4:3 Participation in Educational Activities



lectures and at the end of their fourth year of study students say that they attended 94% of their lectures. This difference is not statistically significant.

The picture is much the same for the 49% of students who have seminars. At the end of first year they report attending 95% of seminars and at the end of fourth year, 91%. This slight decline in attendance is not statistically significant.

Those of us who have taught will likely believe that there is some upward bias in these estimates; however, even if this is the case, there is no reason to believe that the estimates of any one year are any more systematically biassed than estimates of any other year. As a result, we can safely conclude that *comparatively* there is no change in lecture and seminar participation, even if the estimates are somewhat exaggerated.

If the number of monthly visits to the library is examined, Graph 4:3 shows that there is a drop from 9.7 in first year to 7.6 in fourth; however, this difference is not statistically significant. Graph data also indicate that the number of hours per week students spend outside of the class on their studies is identical in first and fourth year (22.2 hours in each case).

Overall, these data indicate that there is virtually no change in the amount of formal academic involvement of students between first and fourth years.

## Comparisons Among Groups

There were so few differences in students' participation in educational activities that were related to family income, ethno-racial origin, gender, and faculty of enrollment that Table 4:3 is only a truncated version of earlier ones. From this table it is evident that other non-European origin students spend the greatest

Table 4:3 Differences in Participation in Educational Activities by Students' Ethno-Racial Origin and Gender

| | Weekly out-of-class hrs. on studies | Sig. |
|---|---|---|
| *Mean* | 22.2 | |
| | | |
| *Ethno-Racial Origin* | | |
| Black | 21.0 | |
| South Asian | 18.4 | |
| Chinese | 18.7 | .034 |
| Other non-European | 25.9 | |
| European | 23.6 | |
| | | |
| *Gender* | | |
| Male | 21.2 | .050 |
| Female | 22.9 | |

number of hours per week (25.9) on their studies. Students of European origin are in second place (23.6 hours) with Black students coming third (21.0 hours). Students of South Asian (18.4 hours) and Chinese (18.7 hours) origin devote the least time to their studies.

In order to determine if these patterns were a reflection more of the number of courses carried rather than ethno-racial origin, data on time spent on studies for the third survey (arbitrarily chosen) was adjusted for number of completed credits. When this procedure was followed, the rank ordering of ethno-racial groups remained the same. In essence, students of South Asian and Chinese origins are spending less time on a per course basis on their studies than particularly students of other non-European origin.

Information in Table 4:3 also shows that after adjustments for family income, ethno-racial origin, and faculty, females (22.9 hours) spend more time on their studies than males (21.2 hours). Although statistically significant, these differences are small.

## Conclusion

From the foregoing it is clear that York students attend most of their lectures and seminars, even if we allow for exaggeration. In addition, participation in these activities does not change significantly between first and fourth years. Similarly, library use and out-of-class time devoted to studies does not really change from one year to the next. These patterns do not vary at all by family income and faculty of enrollment and only in one case by gender and ethno-racial origin. It is important to note, however, that students of South Asian and Chinese origin spend less time on their studies as compared, particularly, to those of other non-European origins.

## Perceptions of Diversity

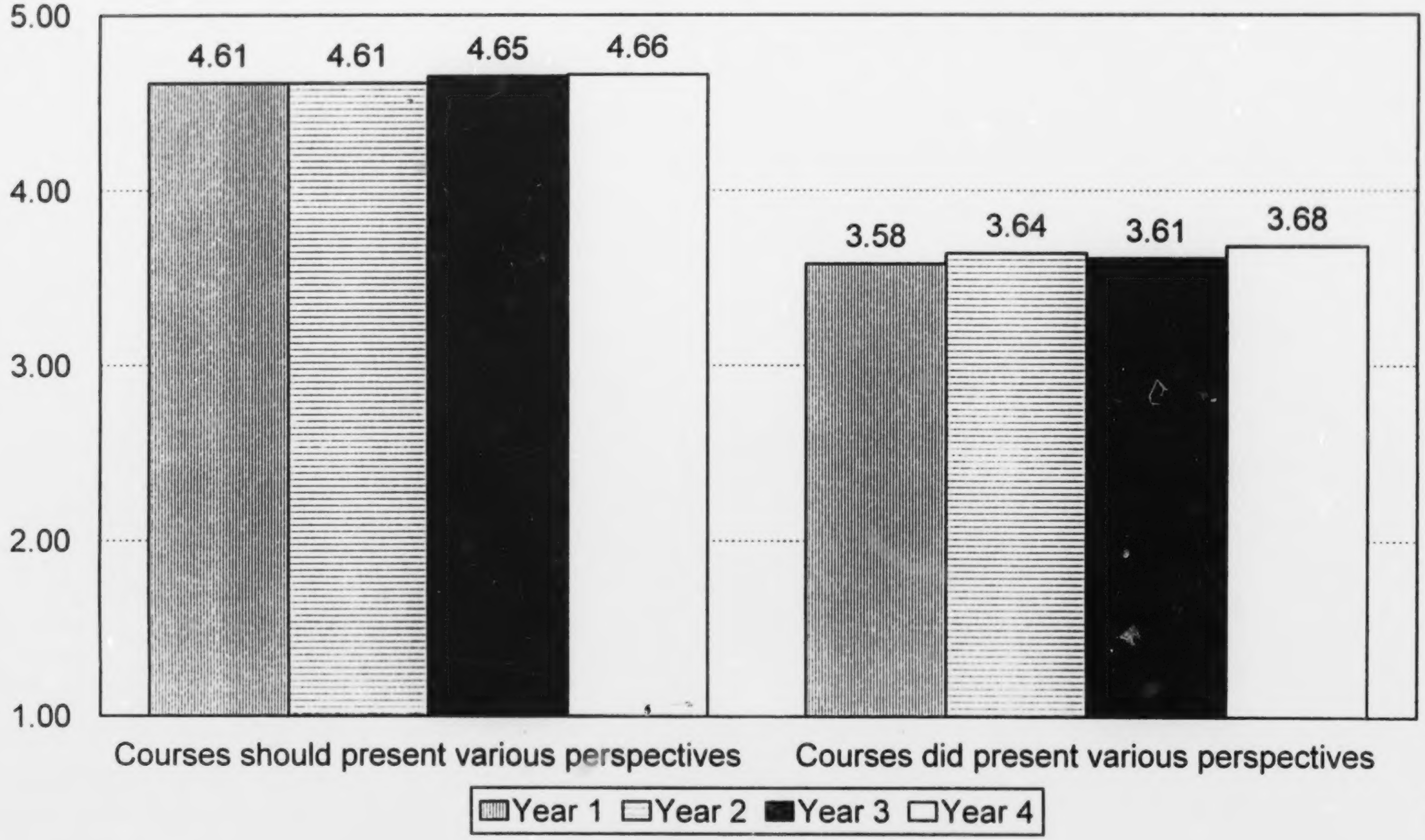
A growing body of research points to the positive learning benefits that derive from exposing students to a variety of different academic perspectives over the course of their education. For example, in his large multiple-institution study of American universities, Astin (1993:431) concludes that campus diversity, in terms of curriculum and access to activities promoting diversity, contributes to "greater self-reported gains in cognitive and affective development, with increased satisfaction in most areas of the college experience, and with increased commitment to promoting racial understanding." In view of these possibilities, students in the York study were asked if they agreed that, "where possible, courses should present a wide range of perspectives" and whether their courses "did present a wide range of perspectives." In each case a score of 1 indicated strong disagreement and 5 strong agreement with the statement.

### Changes Over Time

The annual mean scores for both of these items are found in Graph 4:4. After adjustments have been made for family income, ethno-racial origin, gender, and faculty, graph data indicate a very high commitment to the presentation of various perspectives in courses at the end of first year (4.61). This level of commitment remains relatively constant and by the end of fourth year is virtually unchanged (4.66). The very slight difference among years is not statistically significant.

Graph data also show that students' perceptions of the extent to which courses actually did offer diverse perspectives is relatively low compared to the level of commitment to diverse perspectives. Moreover, the change between first (3.58) and fourth (3.68) year is not statistically significant.

Graph 4:4 Views on Diverse Perspectives



1 = strongly disagree; 5 = strongly agree

Overall, these findings suggest that students have a consistently high commitment to diversity of perspectives in their courses; however, over the course of their studies, students' experience less diversity in perspectives than they feel is appropriate.

## Comparisons Among Groups

Information in Table 4:4 indicates that views on the degree to which courses should present various perspectives varies by neither family income, ethno-racial origin, gender, nor faculty of enrollment. A finding such as this suggests a general commitment on the part of the student body to diversity in the curriculum. Equally important is the finding that perceptions of the actual presentation of diverse perspectives in courses did not vary by family income, ethno-racial origin, or faculty. There is some variation by gender as females (3.68) are slightly more likely than males (3.55) to believe that their courses offered a diversity of perspectives.

## Conclusion

Students enter York with a high degree of commitment to diversity in curriculum and that commitment remains high over the course of their education; however, students actually experience less diversity in perspectives than they would like to see. Overall, students' commitment to diversity, and perceptions of the realization of diversity, do not vary by family income, ethno-racial origin, faculty of enrollment, and only slightly by gender, with females seeing more diversity in their courses than males.

Table 4:4 Views on Diverse Perspectives by Students' Gender

| | Courses should present various perspectives | Sig. | Courses did present various perspectives | Sig. |
|---|---|---|---|---|
| *Mean* | 4.63 | | 3.63 | |
| | | | | |
| *Gender* | | | | |
| Male | | | 3.55 | .045 |
| Female | | | 3.68 | |

## Control Over Academic Life

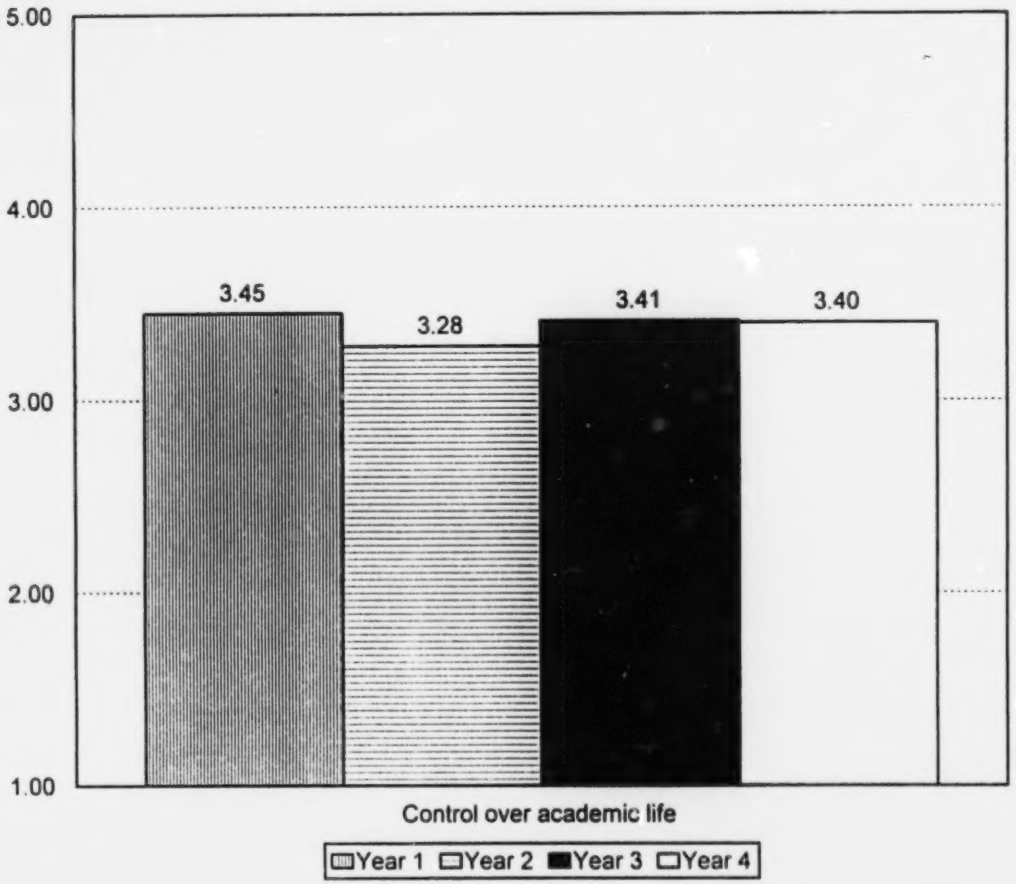
Research has shown that students who feel that they have control over their academic lives (locus of control) are more likely than others to realize positive educational outcomes (Pascarella and Associates, 1996b:733). As a result, in the current study students were asked, "To what extent do you feel able to control what is happening in your academic life here?" On a five point scale, a score of 1 indicated 'no control at all' and 5 'a great deal of control'.

After adjustments for family income, ethno-racial origin, gender, and faculty of enrollment, Graph 4:5 shows that York students feel that they have little control over their academic lives. At the end of first year the score on this measure is 3.45 (remember that 3.00 is the mid point) and 3.40 by the end of the fourth year. This difference is not statistically significant.

Table 4:5 shows that after adjustments for family income, gender, and faculty of enrollment, perceptions of control vary by ethno-racial origin. The highest control is expressed by students of European origin (3.57) and the least by South Asian background students (3.10). The scores for Chinese origin students, other non-Europeans, and Blacks are 3.23, 3.27, and 3.37 respectively. Figures such as these are consistent with earlier findings suggesting that the quality of the educational experience of South Asian and Chinese origin students is relatively and consistently low. By comparison, that of Black and European origin students is relatively high.

Table data also show that males (3.49) feel that they have slightly more control over their academic lives than females (3.31).

# Graph 4:5 Control Over Academic Life



1 = no control at all; 5 = great deal of control

Table 4:5 Control Over Academic Life by Students' Ethno-Racial Origin and Gender

| | Control over academic life | |
|---|---|---|
| *Mean* | 3.39 | Sig. |
| | | |
| *Ethno-Racial Origin* | | |
| Black | 3.37 | |
| South Asian | 3.10 | |
| Chinese | 3.23 | .009 |
| Other non-European | 3.27 | |
| European | 3.57 | |
| | | |
| *Gender* | | |
| Male | 3.49 | .002 |
| Female | 3.31 | |

Overall, the foregoing suggests that students at York feel that they have relatively little control over their academic lives. Least control is experienced by students of South Asian and Chinese background and by female students.

# Students' Problems

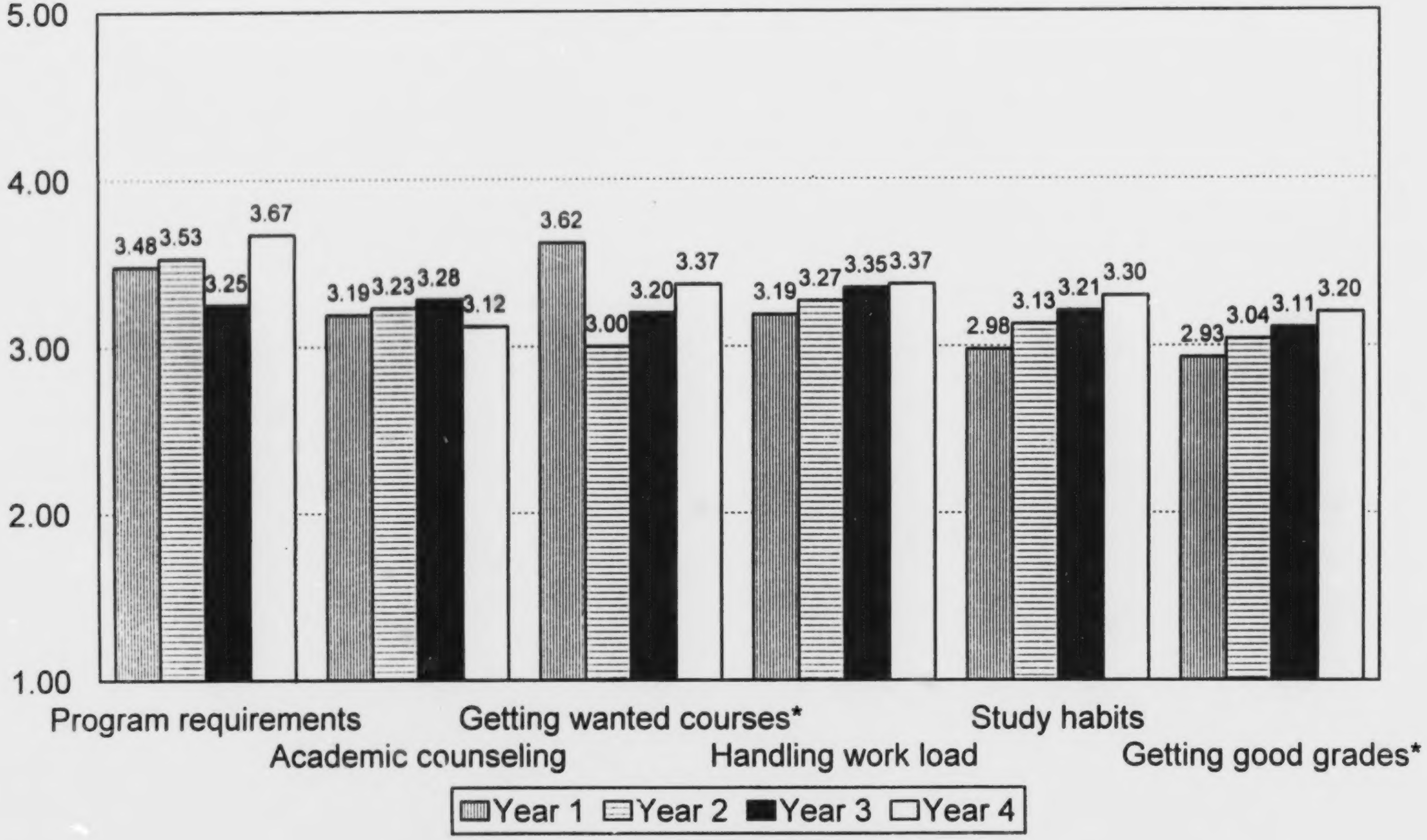
## Changes Over Time

It might be assumed that as students learn the ropes of university life, their ability to deal with various problems associated with their studies increases. That this is true only to a limited extent is borne out by Graph 4:6 focussing on problems with program requirements, academic counselling, getting into wanted courses, being able to handle the work load, study habits, and getting good grades, once adjustments have been made for family income, ethno-racial origin, gender, and faculty.

Keeping in mind that a score of 1indicates that an issue is very problematic and 5 means no problem at all (with 3.00 as a mid-point), Graph data show that in general program requirements are slightly unproblematic for students. Moreover, the differences from one year to the next are small. The end of first and final year scores on this dimension are 3.48 and 3.67 respectively. These differences are not statistically significant.

For the 30% of students for whom it is available, academic counselling is not problematic (nor is it unproblematic) and remains more or less the same from first to fourth year. The end of first year score for this issue is 3.19; for the final survey in fourth year it is 3.12. This change is not statistically significant.

## Graph 4:6 Problems Encountered by Students



1 = very problematic; 5 = not problematic at all. *F statistically significant.

An examination of students' ability to get into courses of their choice presents a slightly different scenario. While the overall impression left by the data is that this issue like the others is slightly unproblematic, differences among years are statistically significant (.025 level). The least difficulty students have in getting the courses they want, however, is not in first year (3.62) but in second (3.37). Scores for years three (3.20) and four (3.37) show that after second year things improve but never get as good again as first year. Although statistically significant, it should be noted that the absolute values of the differences are small.

In any year, graph data show that students' ability to handle the work load is slightly unproblematic going from a low score of 3.19 in first to a high of 3.37 in fourth year; however, this slight difference is not statistically significant.

A pattern similar to that of being able to handle the work load is observed for study habits. Overall (with the exception of first year, in which study habit scores are below the mid-point), students find study habits slightly unproblematic and they become less problematic from year one (2.98) to year four (3.30). Again, this change is not statistically significant.

Finally, as for all of the other dimensions under discussion, and again with the exception of first year, getting good grades is viewed by students as slightly unproblematic. Moreover, there is a statistically significant decrease in the problematic nature of this issue between first (2.93) and final year (3.20). These differences are significant at the .034 level.

Overall, the data in Graph 4:6 indicate that a number of course related issues do not present problems for students across four years of their education. Most scores, however, are just above the mid-point. Moreover, the differences across years are slight, even if in some cases statistically significant: from the students' point of view, along a number of course related dimensions, fourth year is no more or less problematic than first year.

## Comparisons Among Groups

The degree to which different groups of students have problems over the course of their studies is found in Table 4:6. As with other tables in this chapter, only statistically significant results are presented. Moreover, scores for any given factor have already been adjusted for other factors in the table, including, in this case, family income that is not reported because of a low level of statistical significance.

Analysing the mean row of the table, it is evident that of all possible problems, over four years of study, students have the least amount of difficulty with program requirements (3.55) (remember that 1 means very problematic and 5 not problematic at all). Nonetheless, this score, as all others in the mean row, are just above the mid point of 3.00. Getting into desired courses and handling the work load each receive a score of 3.30, suggesting that these issues are only just unproblematic. For students receiving academic counselling the problem score is 3.21 and it is 3.16 and 3.07 for study habits being problematic and getting good grades respectively. Taken collectively, these scores indicate that over four years of study students are just over a mid-point score of 3.00 in terms of various aspects of their courses being problematic.

Of all factors reported in Table 4:6, differences based on ethno-racial origin are most apparent. Program requirements are least problematic for students of European origin (3.76) and most problematic for students of Chinese origin (3.18). The mean scores of Blacks (3.65) and those of South Asian origin (3.63)

### Table 4:6 Problems Encountered by Students' by Ethno-Racial Origin, Gender, and Faculty

| | Program requirements | Sig. | Academic counselling | Sig. | Getting wanted courses | Sig. | Handling work load | Sig. | Study habits | Sig. | Getting good grades | Sig. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| *Mean* | 3.55 | | 3.21 | | 3.30 | | 3.30 | | 3.16 | | 3.07 | |
| | | | | | | | | | | | | |
| *Ethno-Racial Origin* | | | | | | | | | | | | |
| Black | 3.65 | | 3.65 | | | | | | 2.97 | | 2.99 | |
| South Asian | 3.63 | | 2.82 | | | | | | 2.43 | | 2.82 | |
| Chinese | 3.18 | .000 | 2.99 | .012 | | | | | 2.98 | .000 | 2.65 | .000 |
| Other non-European | 3.43 | | 3.28 | | | | | | 3.24 | | 3.03 | |
| European | 3.76 | | 3.26 | | | | | | 3.41 | | 3.39 | |
| | | | | | | | | | | | | |
| *Gender* | | | | | | | | | | | | |
| Male | 3.61 | .031 | | | | | | | | | 3.20 | .005 |
| Female | 3.50 | | | | | | | | | | 2.97 | |
| | | | | | | | | | | | | |
| *Faculty* | | | | | | | | | | | | |
| SSB | | | | | 3.78 | | | | | | 3.05 | |
| Arts | | | | | 3.12 | | | | | | 2.97 | |
| ES | | | | | 3.71 | .013 | | | | | 3.51 | .000 |
| Fine Arts | | | | | 3.24 | | | | | | 3.47 | |
| Glendon | | | | | 3.34 | | | | | | 3.12 | |
| Science | | | | | 2.97 | | | | | | 2.67 | |

are close to that of European origin students. The 3.43 score of other non-European students puts this group just about mid way between Chinese and European origin students.

If academic counselling is examined, Blacks (3.65) find this issue less problematic than other students. By comparison, the scores of South Asian (2.82) and Chinese (2.99) students are relatively low. Indeed, they are below mid-point of 3.00 suggesting that academic counselling is slightly problematic for these groups. The scores for students of other non-European (3.28) and European (3.26) are comparable and obviously lower than those of Black students.

For only two groups, students of European (3.41) and other non-European (3.24) backgrounds are study habits not problematic. For South Asian (2.43) and Chinese origin (2.98), and for Black students (2.97), scores are below the mid-point indicating that study habits are slightly problematic. Given the pervasiveness of this problem for identifiable groups, it is an issue that should be addressed in a systematic way by the university.

Table data also show that getting good grades is slightly unproblematic for European (3.03) and other non-European (3.03) origin students; however, for Chinese (2.65) and South Asian (2.82) origin students and Blacks (2.99), getting good grades is slightly problematic. Whether or not this evaluation translates into actual low grades will be examined later.

In comparison to ethno-racial origin, gender based differences are few. Males (3.61) report program requirements as slightly less of a problem than females (3.50). If getting good grades is examined it is seen that males (3.20) score above the mid-point and females below (2.97). As a result, it is possible to conclude that in two of the six problem areas under discussion, female students experience problems more acutely than their male classmates.

Faculty of enrollment also has implications for two of the six problems under discussion. Students in SSB (3.78) and Environmental Studies (3.71) find getting into the courses they want the least problematic. By comparison, Science students report the highest problem level (2.97). In the Arts faculties the score of students in Glendon (3.34) is slightly higher than that of students in the Faculty of Arts (3.12). The score for Fine Arts is 3.24. From this information it is clear that for only one faculty, Science, is the score for getting into wanted courses below the mid-point.

Finally, getting good grades is least problematic for students in Environmental Studies (3.51) and Fine Arts (3.47) and most problematic for Science students (2.67). Indeed, the score for Science students on this dimension is the lowest for any of the problems examined. The 3.12 and 3.05 scores for Glendon and SSB are still above the mid-point while that of Arts (2.97), like Science, is below the mid-point.

## Conclusion

This section has focussed on six potential course related problems: program requirements, academic counselling, getting into wanted courses, handling the work load, study habits, and getting good grades. Information on these problems leads to four very general conclusions.

First, even though students may gain experience in university life over the course of their studies, there is not much year to year change in the course related problems they encounter, or in how they handle them. Second, for all six problem areas, scores are just above the mid-point. This finding indicates that while the issues studied cannot be viewed as problematic for students, this is barely the case. Third, in general, students of Chinse and South Asian origin report greater problem levels than other students. By comparison, Black students do relatively well in most problem areas. This finding parallels others in this chapter. Fourth, students in Science find certain aspects of their course related lives more problematic than students in other faculties.

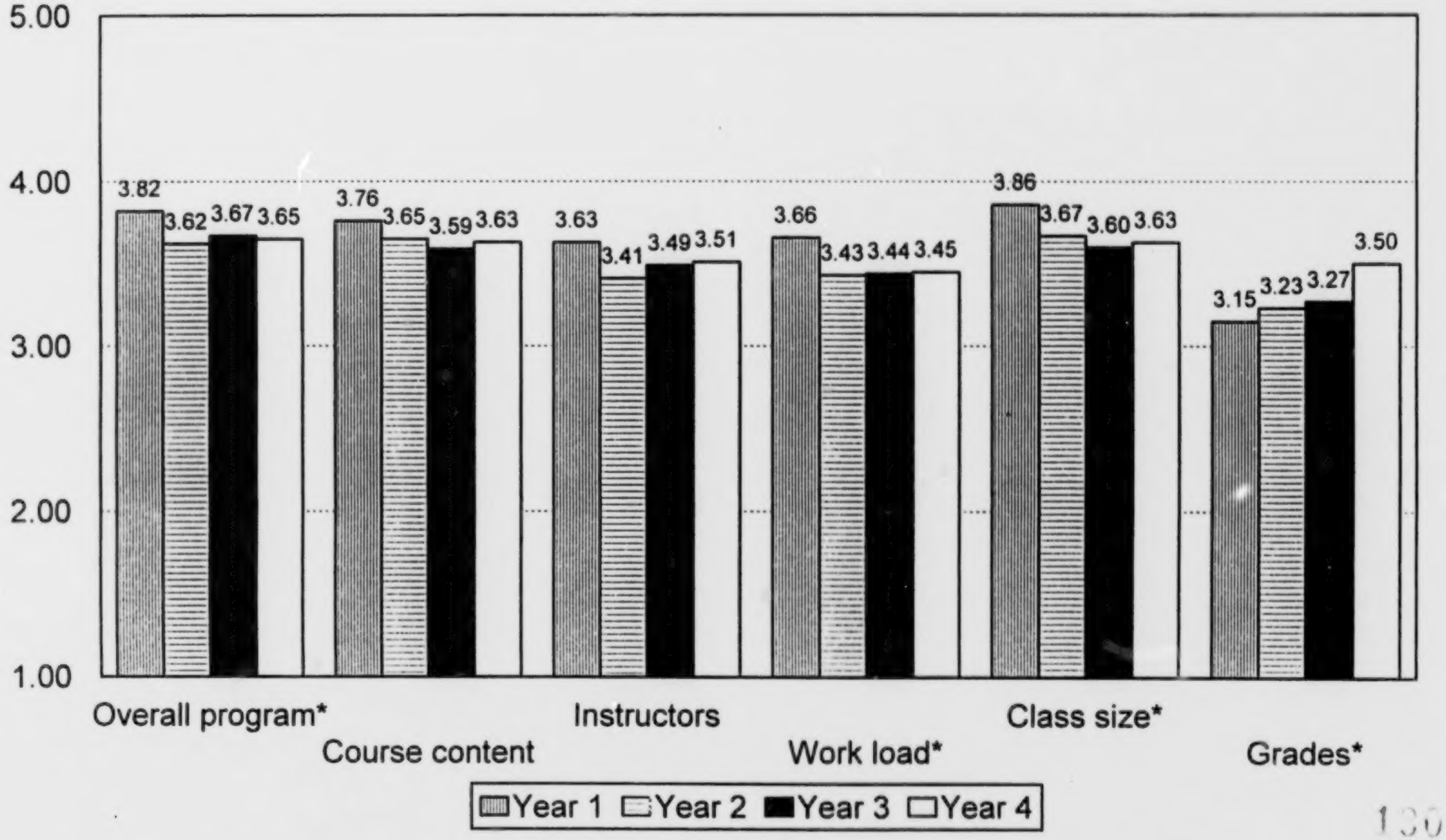
## Student Satisfaction

As shown in Diagram 1 in the Introduction, the factors discussed so far in this chapter have the potential to contribute positively to outcomes of the educational process such as the development of subject matter expertise and intellectual growth. In addition, satisfaction with the educational experience can itself be viewed as a laudable educational outcome. One hopes that students enjoy the experience of learning. Moreover, students who have a satisfying experience while at university are more likely than others to become loyal supporters of their alma mater. For these reasons students in the York study were asked how satisfied they were with their overall academic program, course content, instructors, the work load in their courses, class size, and their grades.

### Changes Over Time

Year by year responses to questions dealing with satisfaction with these issues are summarized in Graph 4:7. Overall, as a score of 1 means very dissatisfied and 5 very satisfied, the data in the graph give the impression that students are somewhat satisfied with most of the areas presented for analysis. Satisfaction with grades is the possible exception to this general rule as scores for this measure are on the low side and just above a mid-point of 3.00.

## Graph 4:7 Satisfaction with Various Aspects of Academic Program



1 = very dissatisfied; 5 = very satisfied. *F statistically significant.

For some measures there are important differences, particularly between first and other years. For overall program satisfaction scores are the highest at the end of first year (3.82). At the end of year two they decline somewhat to 3.62 and hover around this level for the remaining years. This overall distribution is statistically significant at the .008 level.

Satisfaction with work load follows a similar trajectory. Satisfaction is highest in year one (3.66) and thereafter tapers to 3.43 in second year and to similar levels in the remaining years. Once again, these differences are statistically significant (.006).

Satisfaction with class size also is highest in first year (3.86) and decreases to 3.67 in second year. Scores for third and fourth years are a comparable 3.60 and 3.63 respectively. Differences for this variable are statistically significant at the .021 level.

The one deviation from this pattern is satisfaction with grades. The mean score for first year is 3.15 and thereafter satisfaction with grades gradually increases to a high of 3.50 at the end of fourth year. This difference is significant at the .001 level.

For satisfaction with course content and instructors there are no statistically significant differences.

As a final measure of satisfaction, students were asked, "in how many of the courses you are taking do you enjoy being with the other students in the course?" The figure provided was converted into a percentage using information on course enrollment from administrative records. In first year students said that they enjoyed being with students in 79% of their courses (not shown in graph). The figures for second, third, and fourth years were 80%, 78%, and 80% respectively. While the scales are not directly comparable to these measures of satisfaction, the figures suggest a relatively high level of satisfaction with student peers at York.

Leaving aside the question of whether or not in an absolute sense satisfaction is high enough, data in Graph 4:7 indicate that in terms of overall program satisfaction, work load, and class size, the first year experience is as good as it gets at York. For grades things get better over time. For satisfaction with course content and instructors there are no significant differences between and among various years of study. (Even if statistically significant, differences in satisfaction from one year to the next are slight.) For satisfaction with student peers, however, scores remain high over the entire four years of the study.

## Comparisons Among Groups

Table 4:7 summarizes the effects of family income, ethno-racial origin, gender, and faculty of enrollment on each measure of student satisfaction for the entire four years of the study. Each factor in the table is adjusted for the others. An examination of the means row shows that students are most satisfied with their overall program and class size (3.69) and least satisfied with their grades (3.29). Course content receives a satisfaction score of 3.66, instructors 3.51, and work load 3.50.

An overview of the table also reveals the absence of figures relating to family income as family income does not structure how satisfied students are with various aspects of their academic experience. By comparison, satisfaction does vary by ethno-racial origin. If overall program satisfaction is examined, it is seen that European origin (3.83) and Black (3.72) students are most satisfied. South Asian students (3.27) are the least satisfied followed by those of Chinese

## Table 4:7 Satisfaction with Aspects of Academic Program by Ethno-Racial Origin, Gender, and Faculty

| | Overall program | Sig. | Course content | Sig. | Instructors | Sig. | Work load | Sig. | Class size | Sig. | Grades | Sig. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| *Mean* | 3.69 | | 3.66 | | 3.51 | | 3.50 | | 3.69 | | 3.29 | |
| | | | | | | | | | | | | |
| *Ethno-Racial Origin* | | | | | | | | | | | | |
| Black | 3.72 | | 3.82 | | 3.54 | | | | | | 3.02 | |
| South Asian | 3.27 | | 3.40 | | 3.45 | | | | | | 2.92 | |
| Chinese | 3.54 | .001 | 3.48 | .015 | 3.25 | .006 | | | | | 2.92 | .000 |
| Other non-European | 3.64 | | 3.70 | | 3.53 | | | | | | 3.34 | |
| European | 3.83 | | 3.76 | | 3.65 | | | | | | 3.57 | |
| | | | | | | | | | | | | |
| *Gender* | | | | | | | | | 3.54 | .024 | 3.37 | .012 |
| Male | | | | | | | | | 3.81 | | 3.22 | |
| Female | | | | | | | | | | | | |
| | | | | | | | | | | | | |
| *Faculty* | | | | | | | | | | | | |
| SSB | | | | | | | | | 4.01 | | 3.22 | |
| Arts | | | | | | | | | 3.52 | | 3.27 | |
| ES | | | | | | | | | 3.68 | .000 | 3.76 | .015 |
| Fine Arts | | | | | | | | | 3.32 | | 3.48 | |
| Glendon | | | | | | | | | 4.41 | | 3.39 | |
| Science | | | | | | | | | 3.34 | | 2.89 | |

background (3.54). Other non-European origin students have a mean score of 3.64. Once again, students of South Asian and Chinese origin score relatively low while students with European backgrounds and Blacks have high levels of satisfaction.

The pattern is repeated for satisfaction with course content, instructors, and grades. Black students (3.82) are most satisfied with course content and students of South Asian origin the least (3.40). With means of 3.76 and 3.70 the satisfaction of students of European and other non-European origins is comparable to that of Blacks. By comparison, with a score of 3.48, as with other measures, Chinese origin students are most like their South Asian peers.

European background (3.65) and Black (3.54) students are also the most satisfied with their instructors. Chinese origin (3.25) and South Asian (3.45) students express the least satisfaction with instructors. Students of other non-European origins have a mean score of 3.53.

So far, all of the scores examined have been above the mid-point of 3.00. When satisfaction with grades is examined, however, we see that the satisfaction scores of South Asian and Chinese origin students are only 2.92 each. In essence, these students are *dissatisfied* with their grades. Among the other groups, the highest satisfaction with grades is expressed by European origin students (3.57). Black and other non-European students have satisfaction scores of 3.02 and 3.34 respectively.

Gender based differences are only found for satisfaction with class size and grades. While for class size the satisfaction of females (3.81) is higher than that of males, females (3.22) are less satisfied with their grades than males (3.37).

Faculty based differences are also evident for satisfaction with class size and grades. Clearly, Glendon (4.41) and SSB (4.01) students are most satisfied with class size. Those in Fine Arts (3.32) and Science (3.34) are least satisfied. With respective scores of 3.68 and 3.52 Environmental Studies and Arts fall between these extremes.

Students in Environmental Studies (3.76) are more satisfied than students in other faculties with their grades. With a score of only 2.89, Science students express dissatisfaction with how they do on their courses. Scores for students in SSB, Arts, Fine Arts, and Glendon are 3.22, 3.27, 3.48, and 3.39 respectively.

Not shown in the table is information on the percentages of their classes in which students enjoy being with other students. Overall, while students enjoy being with their peers in 79% of their classes, there are ethno-racial based differences. Whereas Blacks enjoy being with the other students in 83% of their classes, for students of South Asian origin the figure is only 67%. For students of Chinese origin the figure increases to 77%. Students of other non-European (82%) and European (81%) origins are closer to Black than to South Asian or Chinese background students on this dimension.

## Conclusion

Seven basic conclusions can be reached about student satisfaction at York. First, in general, students are slightly satisfied with various aspects of their academic lives. Second, for satisfaction with overall programs, work load, and class size, satisfaction peaks in first year. Thereafter it levels off. Third, there is a slight increase in satisfaction with grades over four years of study. Fourth, student satisfaction does not vary with family income. Fifth, on a number of measures of satisfaction, the scores of students of European origin and Blacks are relatively high while those of Chinese and South Asian background students are low. As with findings reported earlier in this chapter, observations such as these suggests that a simple White non-White dichotomy does not capture ethno-racial based differences at York. Sixth, there are no consistent gender based differences in satisfaction with various aspects of academic programs. Seventh, there are no consistent faculty based differences in student satisfaction with the measures currently under discussion.

## Conclusion

In a previous chapter it was noted that particularly in commuter universities such as York, classroom experiences are more important than in residential universities where formal instruction is supplemented by the beneficial effects of out-of-class activities. With this in mind, consistent with the model developed in Chapter 1, the objectives of this chapter were: a) to describe the course work and classroom experiences of York students; b) to examine any change in students' experiences over a four year period; and c) to see if differences in experiences were related to family income, ethno-racial origin, gender, and faculty of enrollment.

When discussing change in student experiences, faculty frequently assume that as a result of relatively smaller classes, gaining institutional familiarity, maturation, and other factors, the university experience improves as students make their way through the ranks. The information in this chapter allows us to comment on assumptions such as these. The data also permit us to determine if coming from a low income family, having other than a European origin, being female, and enrolling in a particular faculty negatively affect university experiences. While the research literature suggests that for many groups claims of 'chilly climates' may be exaggerated, it is an empirical question as to whether or not on any given university campus some groups have tougher times than others.

Unfortunately, when examining both change over time and the experiences of particular groups on any one campus, the problem of comparisons arises. For example, students in fourth year see slightly more of their professors as having desirable characteristics than they did in first year. Are the changes observed at York along these dimensions higher or lower than what might be expected or are they average? Before answers to questions such as these can be provided, similar research must be conducted on other campuses.[3] Only when such information becomes available will people at York and in other universities be able to determine whether or not they are doing a good job.

The same logic applies to comparisons among groups. Even if the experiences of female students were found to be better than those of males, is the absolute level of the experience good enough? While it is possible to establish arbitrary thresholds to assist in evaluations of internal differences, comparisons with other universities are needed for perspective. Having made these points, there are a number things that can be said about the information presented in this chapter.

First, while there are exceptions, overall there is not much change in students experiences from one year to the next. Moreover, when change that is not the result of chance variation is observed, it is not large. For example, more students in fourth than in first year see their professors as having the characteristics that promote learning, but the largest increase (for being 'caring') is only 7%. In essence, contrary to the beliefs of many faculty members, at best things get only marginally better for students from one year to the next. Moreover, for some things, such as being able to get into wanted courses and satisfaction with overall academic programs, work load, and class size, things get worse for students after first year.

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[3] I am not suggesting that research is not taking place on other campuses. I am saying that given the complexities and sensitivities of survey research, meaningful comparisons on the measures studied in this chapter are contingent upon the same questions being asked in the same way in various universities.

Second, family income has virtually no impact on the nature of student experiences inside the university. Even in the few cases where differences on this dimension were statistically significant, it is not possible to conclude that coming from a high income family translates into positive classroom experiences or that low income means less than optimal university experiences. As many York students come from relatively low income families, this is good news.

Third, the impact of ethno-racial origin is different. Time and time again the data indicate that while the experiences of Black students and those of European origin are relatively positive, those of Chinese and South Asian background students are comparatively negative. While these findings indicate that York does not have a chilly climate for non-White students, they do suggest that the university experience varies by ethno-racial origin. Why this difference exists will have to be determined in other studies.

For the time being, two hypotheses can be suggested. First, as a large number of particularly Chinese origin students have English as a second language, what are perceived as differences based on ethno-racial origin may in fact be language and culture based. Second, at York and other universities it is a common assumption that Black students may be from relatively poor and culturally deprived backgrounds and are in need of special consideration. By comparison, students of Chinese origin are often regarded as smart, hard-working, and able to take care of themselves. As a result, individuals may go out of their way to accommodate and support Black students while at the same time they may be relatively insensitive to the needs of other groups of non-Whites.

Fourth, there are relatively few differences in experiences related to gender. When differences are observed, they do not always favour males. In short, it is hard to argue that at York the academic climate is chilly for female students.

Fifth, some student experiences vary by faculty of enrollment. While there is no overall consistent pattern to these differences, there is some evidence to support the idea that in general the experiences of students in Science are relatively negative while those of Fine Arts students are relatively positive.

# Chapter 5: Experiences Outside of Class

## Introduction

Course work and classroom experiences as analysed in the previous chapter can contribute to the realization of desired educational outcomes. Moreover, as seen in Chapter 1, out-of-class experiences of students can have the same effect. For example, contacts with faculty outside of class or playing in a band can both contribute to intellectual development.

In general, experiences outside of the formal classroom can be divided into their academic and social components. The former includes activities such as attending non-required lectures given by visiting scholars; participating in a debating club is an example of the latter. Each can have the effect of contributing to learning on the part of students. As a result, in any study of the university experience, it is imperative to examine academic and social activities that take place outside of the classroom. Unfortunately, as discussed earlier, activities such as these are more likely in residential than commuter universities such as York. The actual degree to which students participate in activities outside of the classroom, and the extent to which participation varies by family income, ethno-racial origin, gender, and faculty of enrollment will be the topic of the current chapter.

# Academic Activities

## Time on Campus

In the previous chapter and in the Introduction, it was pointed out that, as might be expected, students who invest time and energy in various aspects of their university lives are more likely than others to derive benefit from their university experience. One logical rough indicator of involvement for commuter students is the total amount of time spent on campus.

At York, over four surveys carried out at the end of each year, the average number of hours per week spent on campus is 22.9. Year to year differences on this measure are not statistically significant. In addition, hours on campus varies only by faculty of enrollment. Science (27.73) students spend the greatest amount of time on campus and those in Glendon (20.17), Environmental Studies (20.44) and Arts (20.49) the least. Fine Arts (25.63) students are second to Science students and those in the SSB (22.90) are on campus the third most frequently.

## Contact with Professors

### Changes Over Time

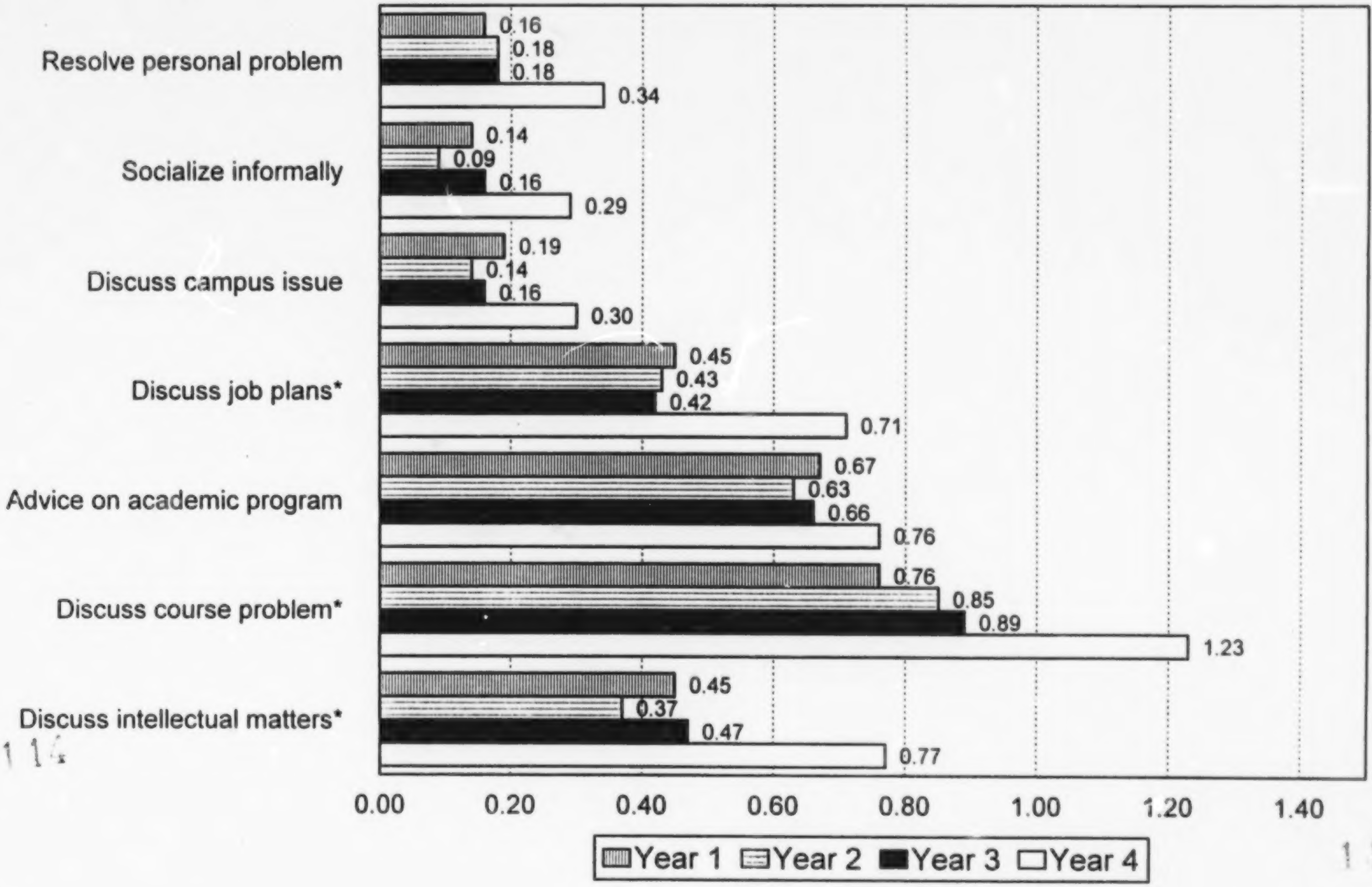
In addition to socializing with peers, Astin (1993) found in his study of American university and college students that out-of-class contacts with faculty were very important contributors to learning outcomes. As a result, in the York study, students were asked over the previous two months how many contacts of ten minutes or more they had with faculty members for the following purposes: to help in resolving a personal problem; to socialize informally; to discuss a campus issue or problem; to discuss plans related to a future choice of occupation; to get basic advice about an academic program; to discuss course related problems; and to discuss intellectual matters. Information in Graph 5:1 gives the mean scores for each of these items after adjustments for family income, ethno-racial origin, gender, and faculty.

While the absence of comparative data from other universities makes definitive statements difficult, the first observation that can be made from table data is that in an absolute sense students have little contact with their professors outside of their classes. For example, as reported in the survey conducted at the end of second year, the least contact students had with their professors was for socializing informally (an average of .09 times over the previous two months). Most contact was reported for discussions of course problems at the end of fourth year (1.23 times over the previous two months).

A second observation is that statistically significant differences over the study period are found for only three types of contacts: those to discuss job plans (significant at .027 level), course problems (significance of .000), and intellectual matters (significant at .000 level). For discussions of job plans, figures for the number of contacts in first (0.45), second (0.43), and third (0.42) years are more or less the same. For fourth year the average increases to 0.71. The pattern for discussions of course problems is somewhat similar. In the first three years average contacts increase from 0.76 to 0.85 to 0.89. At the end of fourth year, however, an average of 1.23 is seen. For discussions of intellectual matters the first, second, and third year scores are 0.45, 0.37, and 0.47 respectively while the fourth year score is 0.77.

## Graph 5:1 Out-of-Class Contacts with Faculty Over Previous Two Months

(10 minutes or more)



*F statistically significant.

Along all three dimensions there is little change between first, second, and third years. In fourth year, however, contact with faculty increases substantially (albeit it is still low). As a result, there is some reason to conclude that the fourth year experience (not to be confused with students having completed 5 x 4 = 20 courses) is one in which there is somewhat greater contact with faculty.

## Comparisons Among Groups

As for comparisons among groups in Chapter 4, in Table 5:1 means are given for differences between groups that are statistically significant, after adjustments for all other factors in the table. Examining the means row, it is evident that over the four year period, the greatest number of out-of-class contacts with faculty over the previous two months were for course related problems (.93) followed by academic advice (.68), intellectual discussion (.52), and job plans (.50). Thereafter there is a decline to .22 for discussions of personal problems, to .20 for campus issues, and to .17 for informal socializing.

In terms of differences between and among groups, table data show that females (.28) have more out-of-class contact with faculty than males (.14) to discuss a personal problem. Conversely, males (.57) have slightly more contact than females (.47) for intellectual discussions.

Students at Glendon (1.03) have the greatest amount of contact focussing on academic advice and students in Fine Arts (.52) the lowest contact along this dimension. With scores of .54, .57, and .56 students in SSB, Arts, and Environmental Studies have more or less equal amounts of contact with faculty for academic advice. Students in Science (.82) have sightly more contact and are second only to students at Glendon in terms of contact for academic advice.

### Table 5:1 Out-of-Class Contacts with Faculty by Gender and Faculty

| | Personal problem | Sig. | Socialize | Sig. | Campus issue | Sig. | Job plans | Sig. | Academic advice | Sig. | Course problem | Sig. | Intellectual discussion | Sig. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| *Mean* | .22 | | .17 | | .20 | | .50 | | .68 | | .93 | | .52 | |
| | | | | | | | | | | | | | | |
| *Gender* | | | | | | | | | | | | | | |
| Male | .14 | .002 | | | | | | | | | | | .57 | .021 |
| Female | .28 | | | | | | | | | | | | .47 | |
| | | | | | | | | | | | | | | |
| *Faculty* | | | | | | | | | | | | | | |
| SSB | | | | | | | | | .54 | | | | .28 | |
| Arts | | | | | | | | | .57 | | | | .37 | |
| ES | | | | | | | | | .56 | .010 | | | .62 | .046 |
| Fine Arts | | | | | | | | | .52 | | | | .36 | |
| Glendon | | | | | | | | | 1.03 | | | | .90 | |
| Science | | | | | | | | | .82 | | | | .55 | |

Students at Glendon (.90) also have the greatest contact for intellectual discussion with their professors. By comparison, students at SSB (.28) have very little contact for this reason. With respective scores of .37 and .36 contact by Arts and Fine Arts students is only slightly higher. Science students report .55 and students in Environmental Studies .62 contacts with faculty over the previous two months for intellectual discussion.

### Conclusion

Overall, there is little absolute contact between professors and students outside of the classroom at York. As such contacts have been found to promote learning and development, lack of contact is problematic; however, until studies are carried out on other campuses it is impossible to place these findings in perspective. It is more clear that with the exception of discussions focussing on job plans, course problems, and intellectual matters, there is little variation in contact from one year to the next. For the three exceptions, contact is relatively stable over the first three years and then increases in the fourth year.

Overall, the impact of family income and ethno-racial origin on out-of-class contacts is non-existent. Gender does affect contacts for personal problems and intellectual discussions but not in a systematic way. Finally, comparisons based on faculty show that students at Glendon College have the greatest number of contacts for academic advice and intellectual discussion. That this is not simply a reflection of Glendon's small size is shown by the relatively low contact levels for other small faculties, such as Environmental Studies and SSB.

## Satisfaction with Contacts

Although the absence of similar information on other Canadian universities precludes final statements regarding the adequacy of out-of-class contact with professors at York, it is possible to examine student satisfaction with faculty contact. In the current study, students were asked, "This year, how satisfied are you with the amount of contact you have with the following people?" One of the categories on the following list was faculty. By circling 1 the student indicated that she was very dissatisfied while 5 meant very satisfied.

Over the entire four years, the satisfaction score with out-of-class faculty contacts was 3.26. A score of this magnitude indicates minimal satisfaction with the amount of out-of-class contact with faculty. In addition, after adjustments are made for family income, ethno-racial origin, gender, and faculty, there is some slight improvement from one year to the next (statistically significant at .001 level). At the end of first year the average score was 3.12. Thereafter it increased to 3.22 in second year, to 3.26 in third, and 3.45 in fourth year. Clearly, the slight increased contact that students have with faculty between first and fourth years is mirrored in their increased satisfaction with such contacts.

Overall, there were no differences in satisfaction with faculty contact related to family income, ethno-racial origin, gender, or faculty.

## Other Academic Activities

In addition to questions about contacts with faculty outside of class, students were asked, "Outside of class, over the past two months, how many academic or career activities have you participated in or attended? Examples include talks by speakers from industry or professional schools; lectures by visiting professors; and so on." Participation in activities identified in this question have been found to contribute to student learning and development.

Over the four year period, after relevant adjustments, students report participation in .96 activities tapped by the question. Year to year differences on this dimension are not statistically significant. Moreover, there are no differences that can be attributed to family income, ethno-racial origin, gender, or faculty of enrollment.

# Social Activities

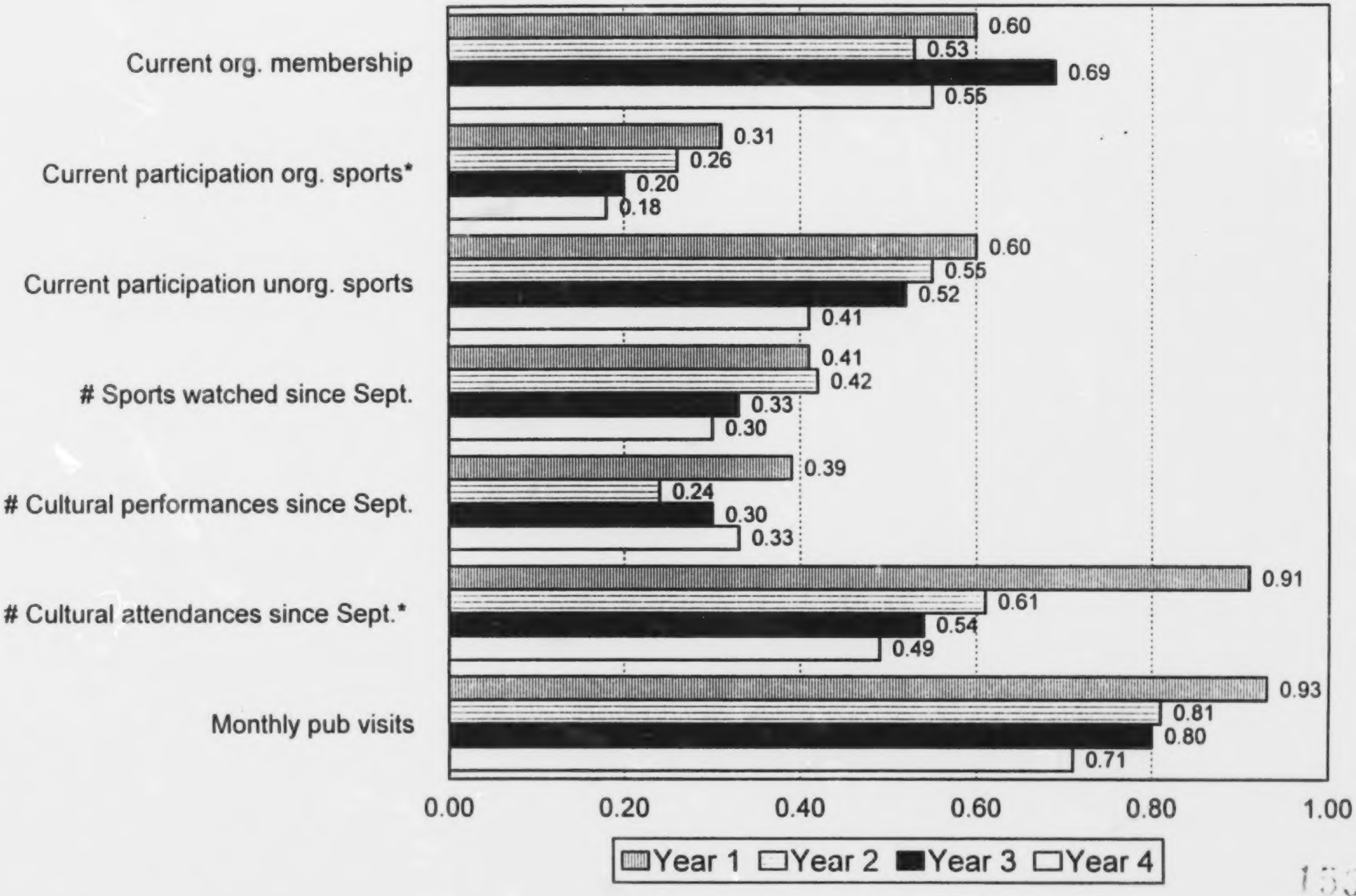
While there is general agreement with the importance of faculty contact in promoting student learning and development, there is less consensus regarding the type of social activities that have the same effect. As a result, in this study, social activities on which students were questioned can be divided into those dealing with: 1) participation in formal and informal activities such as organizational memberships, sports, and cultural events; and 2) friendship patterns with other students that developed over the course of students' studies.

## Participation

### Changes Over Time

Information presented in Graph 5:2 focuses on various social activities available to students: the number of students' current organizational memberships on campus; the current number of organized and unorganized sports in which students participate; the number of sports events watched since September; the number of times students participated in cultural performances since September; the number of times cultural events had been attended; and the number of monthly visits to campus pubs. Bearing in mind that results have been adjusted for the effects of family income, ethno-racial origin, gender, and faculty, the first thing of note in the graph is that participation in events/activities such as these seems low. For example, at the end of fourth year, on average, students

## Graph 5:2 Out-of-Class Social Activities



*F statistically significant.

participated in only .18 organized sports on campus. Highest participation rates are observed for pub visits during first year (.93 per month).

A second observation is that for only two activities, the number of current sports in which students participate and the number of cultural events attended since September, are differences statistically significant. In the former (significant at the .001 level), the number of organized sports in which students participate declines progressively from .31 at the end of first year to .18 at the end of fourth. A similar decline is evident for number of cultural events attended since September (significance level of .034). In first year the figure is .91. By the end of fourth year there has been a progressive decline to .49. For monthly pub visits the figures go from .93 in first, to .71 in fourth year.

The third observation is that for the remaining activities - organizational membership, sports watched since September, and the number of cultural events participated in since September - patterns are more erratic.

Collectively, the data in Graph 5:2 suggest little participation on the part of students in various activities. Moreover, in certain areas, there is evidence of decline in activities between first and fourth years. We know from the previous chapter that a decline in these areas is not matched by a corresponding increase in the number of hours spent on studies outside of the classroom. We also know, however, that students spend slightly more time on out-of-class contacts with professors as their careers at university progress.

## Comparisons Among Groups

The extent to which participation in various activities described in Graph 5:2 vary with family income, ethno-racial origin, gender, and faculty (each adjusted for the other) is summarized in Table 5:2. Of immediate note is that family

## Table 5:2 Out-of-Class Social Activities by Ethno-Racial Origin, Gender, and Faculty

| | # Org. member | Sig. | # Org. sports | Sig. | # Unorg. Sports | Sig. | # Watched sports | Sig. | # Cultural perform. | Sig. | # Cultural attendance | Sig. | # Pub visits | Sig. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| *Mean* | .59 | | .24 | | .52 | | .37 | | .32 | | .64 | | .81 | |
| | | | | | | | | | | | | | | |
| *Ethno-Racial Origin* | | | | | | | | | | | | | | |
| Black | | | | | | | .53 | | | | .73 | | .55 | |
| South Asian | | | | | | | .23 | | | | .36 | | .20 | |
| Chinese | | | | | | | .18 | .010 | | | .38 | .024 | .55 | .000 |
| Other non-European | | | | | | | .19 | | | | .54 | | .49 | |
| European | | | | | | | .54 | | | | .85 | | 1.29 | |
| | | | | | | | | | | | | | | |
| *Gender* | | | | | | | | | | | | | | |
| Male | .65 | .020 | | | | | | | | | | | | |
| Female | .55 | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | |
| *Faculty* | | | | | | | | | | | | | | |
| SSB | .87 | | | | .20 | | .07 | | | | .20 | | | |
| Arts | .54 | | | | .47 | | .27 | | | | .54 | | | |
| ES | .76 | .048 | | | .78 | .001 | .26 | .027 | | | .53 | .001 | | |
| Fine Arts | .36 | | | | .39 | | .78 | | | | 1.60 | | | |
| Glendon | .38 | | | | .48 | | .30 | | | | .52 | | | |
| Science | .72 | | | | .78 | | .24 | | | | .50 | | | |

income does not affect students' social activities on campus. By comparison, some differences are related to ethno-racial origin. For example, students of European origin (.54) and Black students (.53) watch far more sports than those of South Asian (.23), Chinese (.18) and other non-European (.19) origins. The same holds for number of cultural activities attended. Whereas European origin and Black students attended .85 and .73 cultural events since September respectively, the figures for South Asian (.36) and Chinese (.38) origin students are far lower. Figures like these are consistent with other information suggesting a relatively impoverished university experience for these groups. Other non-European students (.54) attend a middle number of cultural events.

Information in the column on monthly pub visits also shows ethno-racial differences. By far, students of European origin (1.29) make the greatest number of weekly pub visits. Black students (.55) and those of Chinese origin (.55), followed closely by other non-European students (.49), are the next greatest users of pubs. By comparison, South Asian origin students make on average only .20 visits to pubs per month.

If gender is examined, table data show that males (.65) belong to slightly more campus organizations than females (.55).

Differences are also evident if faculty of enrollment is examined. Students in SSB are members of more organizations (.87) than particularly students in Fine Arts (.36). Environmental Studies (.76) and Science (.72) students also have relatively high rates of participation in campus organizations. While Arts students (.54) fall slightly below the mean of .59 recorded in the mean's row, Fine Arts (.36) and Glendon (.38) students are well below the mean on this measure.

Whereas SSB students participate the most in organizations, on average they are involved in relatively few unorganized sports (.20). Most involved in this type of activity are Science (.78) and Environmental Studies (.78) students. Least participation is noted for students in Fine Arts (.39). The figures for Arts and Glendon are .47 and .48 respectively.

Despite their relatively low participation in organized and unorganized sports, Fine Arts students watched .78 sports events since September. This is higher than for students in other faculties. Lowest watching is reported by students in SSB (.07). Science (.24), Environmental Studies (.26) and Arts (.27) students occupy a middle ground. On average, Glendon students watched .30 sports events since September.

Whereas Fine Arts students had low levels of participation in sports, their attendance at cultural events since September (1.60) was three times higher than that of students in Arts (.54), Environmental Studies (.53), Glendon (.52) and Science (.50). Lowest in terms of attendance at cultural events were SSB students (.20).

## Conclusion

The foregoing suggests that student involvement in out-of-class activities at York is low and that participation drops off between first and fourth years. Moreover, as seen in other cases, overall participation rates of South Asian and Chinese origin students are relatively low. Differences are also observed among faculties. In general, while Fine Arts students participate little in sports, they watch sports and go to cultural events more than others. By comparison, although SSB students participate in organizations on campus, their rates of participation in other activities are relatively low. Overall, data such as these suggest different cultures among various ethno-racial and faculty groups when it comes to participation in out-of-class activities at York.

## Friendship Patterns

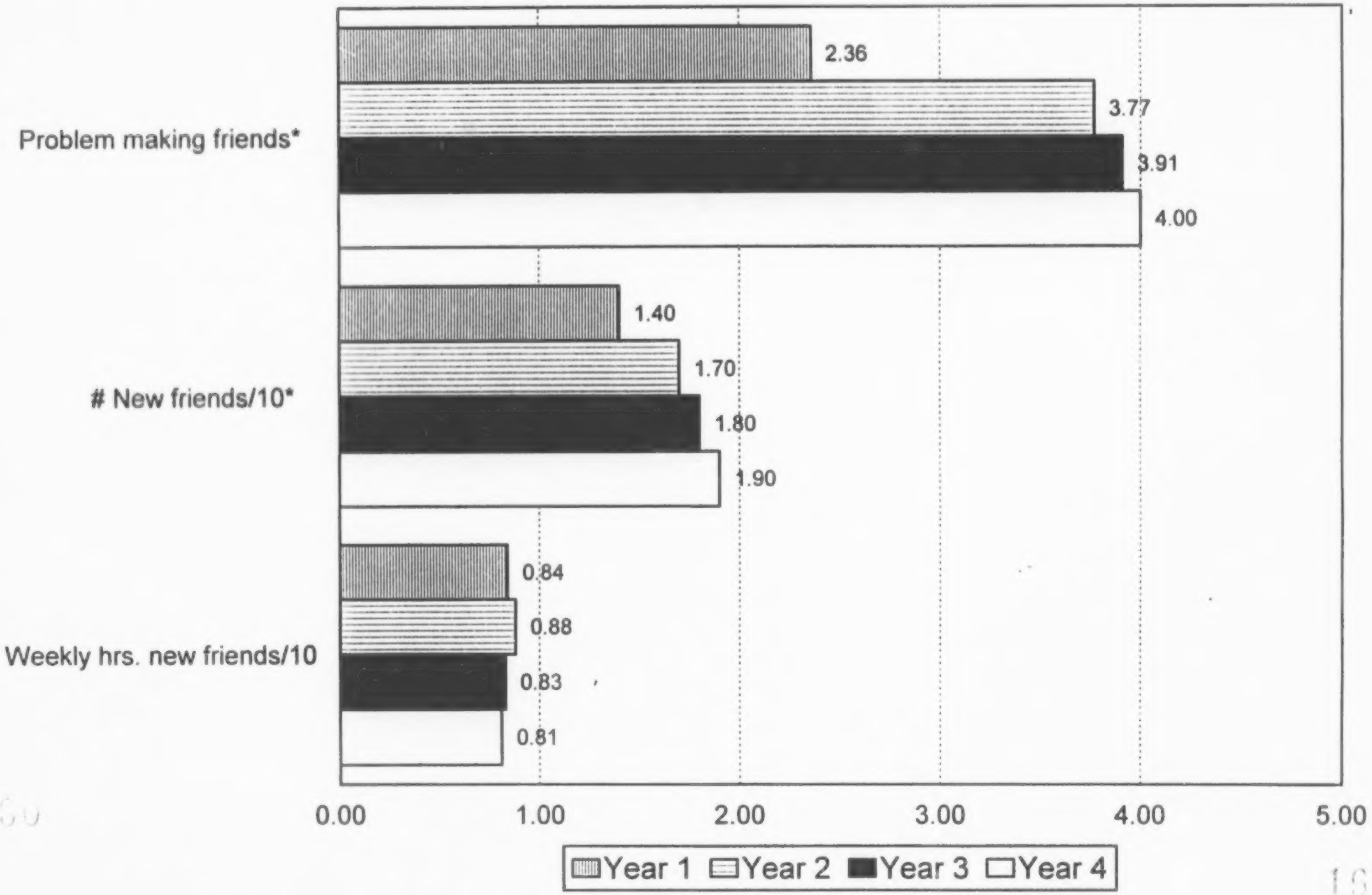
As noted by Astin (1993), peer influences on students is likely greater than that of faculty. As a result, it is important to examine the development of friendships among students. Moreover, being able to make friends in first year assists students in successfully adapting to university. Thereafter, having friends on campus contributes to the richness of university life. As a result, in the current study, students were asked how difficult it had been to make friends; how many new friends they had made since starting university; and how many hours a week they spent with their new friends.

### Changes Over Time

Information on the difficulty students had in making friends, where 1 means highly problematic and 5 no problem at all, is summarised in Graph 5:3. (Adjustments have been made for family income, ethno-racial origin, gender, and faculty.) Clearly, as a score of 3.00 is the mid-point, the 2.36 mean score for problems in making friends reported in first year indicates that the establishment of friendships had been problematic for new enrolees. By the end of second year, however, the average score for this measure increases to 3.77, suggesting that it is only in second year that making new friends ceases to be problematic for students. (This is a longer time than anticipated.) The 3.91 and 4.00 scores for third and fourth years indicate little change in the difficulty in making friends after first year. Overall, these differences are significant at the .000 level.

In Graph 5:3 the actual number of new friends made by students and the number of hours per week spent with these new friends have been divided by 10 to

## Graph 5:3 Friends on Campus



*F statistically significant.

facilitate graphing. At the end of first year students indicated that they had made 14 new friends since the start of classes. In subsequent years, the number of new friends increased slightly, though progressively, to 17, 18, and 19. These differences are statistically significant at the .042 level.

Although over time making friends becomes less and less problematic, and students make increasingly more friends, graph data indicate that the amount of time spent with friends does not change to a statistically significant extent over four years of university. During first year students spend an average of 8.4 hours a week with new friends and 8.1 hours of contact is reported for fourth year.

## Comparisons Among Groups

After adjustments for family income, gender, and faculty, it is seen from Table 5:3 that problems in making friends and the amount of time spent with friends only varies by ethno-racial origin. The actual number of new friends made is not affected by family income, ethno-racial origin, gender, or faculty.

As with many other examinations of ethno-racial origin in this report, students of South Asian (3.31) and Chinese (3.25) backgrounds fare less well than students of European (3.64) and other non-European (3.57) origins, and Blacks (3.57) when it comes to problems in making friends; however, there is some variation in this pattern when the amount of time with friends is examined. The least time spent with friends is reported by Chinese (5.87) and Black (6.92) students and the most by European (9.29) and other non-European origin (9.29) students. Those of South Asian ancestry report an average of 8.10 hours per week with new friends.

## Table 5:3 Friends on Campus by Ethno-Racial Origin

| | Problems making friends | Sig. | # New friends | Sig. | Weekly hrs. new friends | Sig. |
|---|---|---|---|---|---|---|
| *Mean* | 3.51 | | 17.1 | | 8.4 | |
| | | | | | | |
| *Ethno-Racial Origin* | | | | | | |
| Black | 3.57 | | | | 6.92 | |
| South Asian | 3.31 | | | | 8.10 | |
| Chinese | 3.25 | .001 | | | 5.87 | .050 |
| Other non-European | 3.57 | | | | 9.29 | |
| European | 3.64 | | | | 9.73 | |

### Conclusion

Overall, problems students have with making friends are restricted to first year. Moreover, while the largest single number of new friends are made in first year, students continue to make friends over the remaining four years. The amount of time spent with friends, however, does not change over time. Over the entire study period, only differences based on ethno-racial origin are statistically significant.

## Satisfaction With Social Life

So far we have seen that with time, problems in making friends decline, the number of friends increases, and the amount of time spent with friends remains the same. Do these findings have implications for overall satisfaction with students' social lives on campus?

The data suggest that they do not. On a five point scale where 1 means very dissatisfied and 5 very satisfied, mean scores for each of the four years are 3.52, 3,55, 3.54, and 3.55. In essence, there is no change from one year to the next.

There are, however, statistically significant differences (at the .005 level) based on ethno-racial origin. Students of European (3.75) and other non-European (3.68) origin are most satisfied with their social lives on campus. With a score of 3.43 Blacks are in third place. The satisfaction of South Asian (3.15) and Chinese (3.18) origin students is considerably below that of others.

## Conclusion

As previously noted, out-of-class academic and social activities can contribute to student learning and development. The point has also been made that such contacts are more likely in residential than commuter universities such as York. Moreover, in Canada, residential universities are rare. As a result, the experience of York students likely is typical.

Some may argue with this position and say that the pattern at York, Canada's third largest university, likely is more anomic than on smaller campuses, such as St. Mary's in Halifax. In response it can be argued that as many of the out-of-class experiences of students at Glendon College, a small bi-lingual liberal arts college situated on its own campus, are not that different from experiences of students in other parts of the university, size is not the determining factor. What may be more important than size in explaining the level and nature of involvement outside of the classroom is the culture of various faculties. This interpretation is consistent, for example, with the high involvement of SSB students in organizations on campus and their low participation in cultural events. As a result, any attempts to increase student involvement are likely to work best if carried out at the faculty level.

In addition to this general conclusion, there are a number of specific conclusions that can be drawn from the data. First, students have few out-of-class contacts with faculty for any reason. Just the same, for some purposes, contact with faculty increases somewhat between first and fourth years. Despite this fact, student satisfaction with the amount of contact they have with their professors remains low over all years of the study. In addition, there are some differences among faculties regarding the nature and extent of students' out-of-class contact with their professors.

Second, students' involvement in social activities outside of the classroom is also low. Indeed, while contacts with professors in some areas increase over time, the reverse is true for involvement in other campus based activities. At the same time, rates of participation vary by both faculty and ethno-racial origin. Regarding the latter, students of South Asian and Chinese origin are less involved than other students on campus. Whether or not the pattern for these students reflects cultural preferences or alienation from the university is not known at this time.

Third, making friends is problematic for students in first year. By second year, however, students have few difficulties in making friends, even though the number of new friends reported in second through fourth years is not that much greater than reported in first year. Moreover, students spend roughly the same amount of time with their friends on campus in each of the four years. Unfortunately, students of Chinese origin have difficulty in making friends and they spend relatively little time with the friends they do have.

Finally, the data analysed in this chapter show that students' experiences outside of the classroom do not vary by family income. A finding such at this indicates an equality but not necessarily a quality of experience for students from different financial backgrounds. In addition, very few experiences vary by gender. In two of the three cases in which there were gender based differences, however, comparisons favour male students.

# Chapter 6: Sources of Support for Studies

## Introduction

The previous chapter dealt with activities outside of the classroom such as contacts with faculty and peers that are typically measured in studies of the student experience based on the university impact model. The focus of this chapter will be on: students' perceptions of whether or not the university could have done anything that would have assisted with the transition to university; opinions of the utility of a course that would help students adjust to university; whether students study in a group or alone; whether or not students encounter difficulties with their studies over the course of the year; and to whom students turn for support if they encounter problems with their courses. While some of these issues could have been discussed as out-of-class activities in the previous chapter, it was decided to treat them as a separate short chapter because of the thread of adjustment and support for studies that runs through them.

## The Adjustment to University

Universities can take various steps in attempts to assist students make the transition to university. Moreover, at York, there are several programs with this objective. As students often do not know of such programs, or fail to use them, at the end of first year students were asked, "Is there anything that could have been done by York that would have helped you adjust to university." Overall, 30% answered 'yes' to this question. At the end of second year, when reflecting back on their first year experience, an almost identical 31% responded in the affirmative. The figures for third and fourth years were 29% and 33% respectively. Figures such as these suggest that approximately one-third of students hold stead-fast to the idea that better efforts could be made by York to help in the adjustment process.

In many universities, one of the ways in which the transition to first year is handled is by the provision of a course in which students learn the ropes of the institution and acquire generic skills that will be of assistance in dealing with their other courses (Upcraft and Gardner, 1989). There is growing evidence that courses such as these meet their objectives.

In order to get an idea of the receptivity of York students to a course such at this they were asked, "Do you think it would be a good use of time or a waste of time if the University had a compulsory, first year credit course that would cover subjects such as: university standards, criteria, and procedures; effective studying; time management; improving writing; stress management; and jobs in the field in which you are majoring?" Possible responses ranged from 1 indicating a complete waste of time to 5 meaning a very good use of time.

After adjustments had been made for family income, ethno-racial origin, gender, and faculty, the mean score at the end of first year for this question was 3.51. For second, third, and fourth years it was 3.40, 3.54, and 3.55. These differences were not statistically significant. Moreover, the magnitude of the scores indicates that in each year students continued to regard such a course as a good idea. This commitment parallels the notion that the university could have done something to smooth the transition to university.

When differences among groups were examined, after the appropriate adjustments for ethno-racial origin, gender, and faculty, only family income had an impact on attitudes toward the compulsory course; however, these income based differences did not vary in a systematic way.

## Studying

As noted in the Introduction to this report, collaborative learning practices, such as group study, have been found to have positive impacts on learning outcomes. Because of this connection, students were asked whether they studied alone, in a group, or both alone and in a group.

Answers to this question varied little from one year to the next. In year one, the vast majority of students, 72%, said that they studied alone. Only 1% stated that they studied in a group and 27% said that they studied both alone and in a group. Figures for second year were similar. Sixty five percent studied alone, 1% in a group, and 34% used both study methods. In year three 68% studied alone, 1% in a group, and 31% alone and in a group. Finally, in the fourth year, 69% studied alone, less than .5% studied in a group, and 31% said both alone and in a group.

Overall, almost no students study only in groups and only a minority report both group and solitary study. Moreover, fluctuations from one year to the next in study patterns are very slight. If group learning does contribute to desired educational outcomes the findings of this study may suggest that changes to promote the practice are needed in some York programs.

While there are virtually no differences from one survey to the next in terms of study habits, there is evidence that students encounter less difficulty with their studies as time progresses. Although the data do not permit carrying out multivariate analyses of variance, frequency distributions show that in first year 62% of students report having trouble with their courses. In second year this drops to 60%. In third year these is a substantial decrease to 51% and a further decline in fourth year to 44%.

Students who did report having difficulties with their studies were asked, "to whom did you turn for help?" The figures in Table 6:1 show that some people provide more help to students than others and some changes between first and fourth years in terms of who provides help.

Overall, friends are cited as a source of help more than any other category. There is, however, a slight progressive decline in responses in this category from a high of 76% in first year to 68% in the final year. Classmates are also identified as frequent sources of help. Moreover, once again there is a progressive decline between first (76%) and final (64%) years. By comparison, over time, students turn more and more to their professors for assistance. In first year, only 36% of students avail themselves of support from this source. By the end of final year 56% of students report having relied on their professors for help in their studies. This pattern parallels the increased out-of-class contact with faculty noted in the last chapter.

In first year, campus services, such as the essay writing service, are used by relatively few students (15%); however, by the end of fourth year reliance on this source of support had declined further to 7%. Similarly, teaching assistants, lab demonstrators, and studio technicians are relied on by fewer and fewer students: 43% in first and 30% in fourth years. Only about one quarter of students rely on

Table 6:1 Percentage of Students Using Various Sources of Help with Studies

| | Year 1 | Year 2 | Year 3 | Year 4 |
|---|---|---|---|---|
| Classmates | 72% | 72% | 68% | 64% |
| Friends | 76% | 73% | 71% | 68% |
| Campus services | 15% | 12% | 9% | 7% |
| Professors | 36% | 44% | 48% | 56% |
| Teaching assistants etc. | 43% | 40% | 35% | 30% |
| Parents | 26% | 25% | 22% | 25% |
| Dealt with problems alone | 31% | 28% | 27% | 24% |
| Other | 6% | 9% | 7% | 7% |
| Total responses | 1451 | 1371 | 1106 | 632 |

their parents and this percentage remains more or less constant across all surveys. The number of students reporting that they dealt with their problems on their own declines slightly yet progressively from 31% in first to 24% in fourth year. Other sources of support are reported by very few students in any survey.

Overall, these figures indicate that over time, while friends and classmates remain the most frequently cited sources of support when having trouble with studies, reliance on professors goes up. Campus services are rarely used and the extent to which parents are of assistance remains low and relatively constant. Teaching assistants and so on are less and less often cited as sources of support, likely because upper level courses have fewer teaching assistants than lower level courses. Roughly a quarter of students deal with problems on their own.

## Conclusion

There are three main conclusions that can be drawn from the information in this chapter.

First, relatively few students think that the university could have done anything to ease the transition to first year. This said, there is a slight amount of continuing support for a first year course that would help students become acquainted with the university and assist them in developing generic skills.

Second, most students study alone.

Third, between first and fourth years, fewer and fewer students report having difficulties with their studies. Those who do have problems rely mainly on friends and classmates for assistance. However, over time, more and more reliance is placed on professors.

# Chapter 7: External Influences

## Introduction

Outcomes of the university experience are a product of more than the activities that occur within institutional walls. As shown in the model developed in the Introduction, the factors external to the university that can have an impact on students' campus lives include jobs and the expectations of family and friends. By way of illustration, students who spend many hours per week in paid employment may have little time left over for engaging in extra-curricular activities or for meeting their professors outside of class hours. Having a part-time job, however, may enable students to develop personal and organizing skills and to make important links to potential employers. Student's who receive positive support from families and friends may find it easier to adjust to, and to meet the continuing demands of, university life. Conversely, detachment may be a necessary step for students whose families hold values antithetical to education. As a result, it is important to examine the work commitments and external sources of support of York students.

# Jobs

## Changes Over Time

Obviously, for many students, the need for a part-time job is related to difficulties they may have in meeting the expenses associated with their university education. As a result, students were asked how problematic it had been to get "enough money to meet the expenses involved in attending university." Response options ranged from 1 meaning very problematic to 5 indicating no problem at all. Students were also asked how problematic it had been for them to get "a part-time job during the semester to get money to meet expenses" (response options were the same as the previous question) and how many hours per week they spent in paid employment. Finally, using the response options referenced above, students were asked how difficult it was to find "time to devote to studies".

As seen in Graph 7:1, in each of the four surveys, students' scores for the problem they had in getting enough money to meet expenses were below the mid-point of 3.00. In essence, during all years of study, getting money for expenses had been somewhat of a problem for students. The year-to-year differences on this measure are small and not statistically significant. For example, in first year the score was 2.96 and by the end of fourth year it was only slightly lower at 2.86.

By comparison, for each year of the study, the information in Graph 7:1 also shows that getting a part-time job to meet expenses was somewhat unproblematic. Moreover, difficulties in finding part-time work declined between first (3.23) and final (3.70) years in a systematic yet statistically insignificant way.

These figures reflect the reality that in each successive year of the study, more students reported working for pay than in the previous year (not shown in graph). While 59% of students in their first year mentioned that they had a part-time job, this number increased to 69% in second year. In third it increased again to 74% and by fourth year 78% of students were working part-time.

Information on the average hours per week students work (those not working are credited zero on this measure) as summarized in Graph 7:1 is consistent with the fact that over time more and more students work. (Note that the actual number of hours worked has been divided by 10 to facilitate graphing.) In first year, on average, students work 6.3 hours per week. This figure increases to 7.7 hours in second, and to 9.4 hours in third year. By fourth year students work an average of 11.0 hours per week. These differences are statistically significant at the .027 level.

Although students spend more and more time at work, graph figures also demonstrate that if anything there is a very little difference between first and fourth years in the problems students have in finding enough time for their studies. The slight differences that do exist are not statistically significant.

Overall, the information in Graph 7:1 suggests that having enough money to meet expenses is an on-going problem for students; however, getting a part-time job to meet these expenses may be less and less difficult. In addition, the number of hours students work increases from one year to the next. At the same time, increased commitment to work does not signal a parallel increase in problems students have in finding enough time for their studies.

## Comparisons Among Groups

The means row in Table 7:1 confirms impressions gained from Graph 7:1. Over the entire study period, having enough money to meet expenses is most problematic (2.86) followed by finding enough time to complete studies (3.32). By comparison, difficulties in finding part-time jobs (3.45) are relatively less problematic.

After adjustments for ethno-racial origin, gender, and faculty table data also show that there is a slight yet statistically significant relationship between family income and having problems in getting enough money for expenses. For example, students whose parents' incomes are $26,000 or less report the most difficulty in getting money for expenses (2.63). At the other end of the spectrum, for students from families with annual incomes of $100,000 or more, the score is 3.06. With the exception of students whose parents earn from $76,000 to $100,000, the greater the family income, the fewer problems with having enough money for expenses.

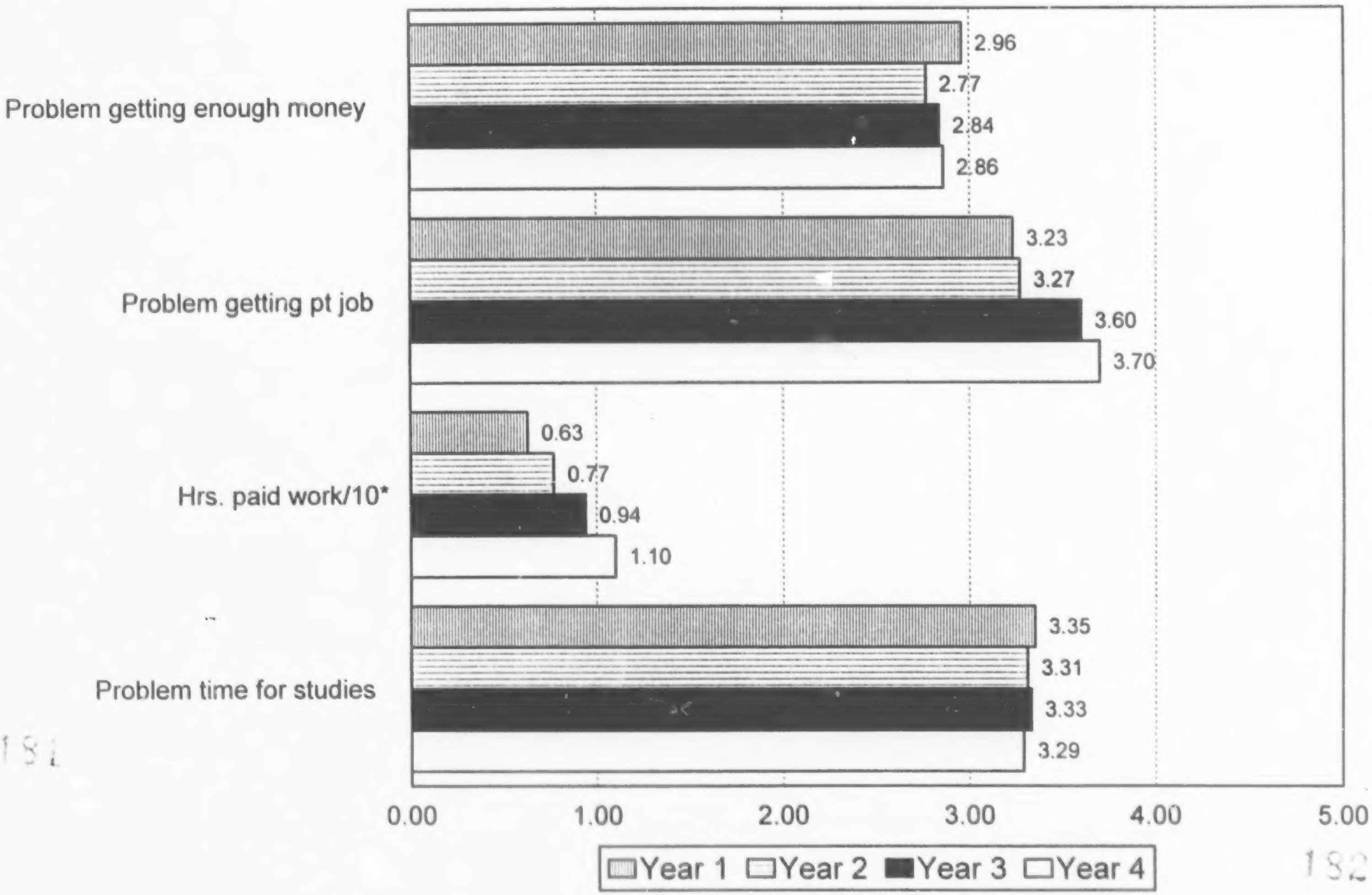
The difference for gender is also statistically significant. Overall, males (3.07) find getting enough money less problematic than females (2.69).

Before discussing the answers to the question on students' difficulties with getting part-time jobs, it is important to note that for whatever reason this question was relevant to only 47% of the sample. Of students answering the question, table data show that those of South Asian origin (2.33) have the greatest problems. The least problems are reported by students of European origin (3.70). Although when examining other aspects of the student experience it was seen that on many dimensions Black students were comparable to those of European background, in this instance the former indicate far more difficulty

## Table 7:1 Money and Jobs by Students' Family Income, Ethno-Racial Origin, and Gender

| | Money problems | Sig. | PT job problems | Sig. | Hrs. paid work | Sig. | Study time problems | Sig. |
|---|---|---|---|---|---|---|---|---|
| *Mean* | 2.86 | | 3.45 | | 8.64 | | 3.32 | |
| | | | | | | | | |
| *Family Income* | | | | | | | | |
| LT $26K | 2.63 | | | | | | | |
| $26K to $50K | 2.68 | | | | | | | |
| $51K to $75K | 2.95 | .019 | | | | | | |
| $76K to $100K | 2.84 | | | | | | | |
| GT $100K | 3.06 | | | | | | | |
| | | | | | | | | |
| *Ethno-Racial Origin* | | | | | | | | |
| Black | | | 2.85 | | 8.97 | | 3.25 | |
| South Asian | | | 2.33 | | 6.82 | | 3.23 | |
| Chinese | | | 3.34 | .015 | 6.02 | .024 | 2.96 | .001 |
| Other non-European | | | 3.36 | | 8.62 | | 3.32 | |
| European | | | 3.70 | | 10.30 | | 3.55 | |
| | | | | | | | | |
| *Gender* | | | | | | | | |
| Male | 3.07 | .000 | | | | | | |
| Female | 2.69 | | | | | | | |

## Graph 7:1 Money and Jobs



*F statistically significant.

with getting part-time jobs (2.85) than the latter (3.70). Both students with Chinese (3.34) and other non-European (3.36) origins confront fewer problems with getting jobs than either South Asian (2.33) or Black students (2.85).

Table information on the number of hours per week of paid work shows that students of European origin work more hours per week than any other groups (10.30). Despite their having problems in finding part-time work, Black students (8.97) and those of other non-European origin (8.62) report the next greatest numbers of hours of weekly work. The least work is reported by Chinese (6.02 hours) and South Asian (6.82 hours) origin students.

Although they work the greatest number of hours, students of European origin (3.55) report the least difficulty in finding enough time for their studies. By comparison, those of Chinese origin (2.96) have the greatest difficulty in finding study time. Students of South Asian (3.23) origin, Blacks (3.25), and students of other non-European origin (3.32) all have more difficulty with finding study time than those of European origin.

The foregoing analysis indicates that experiences with money and jobs vary most by ethno-racial origin. However, although in some former analyses differences between students of European origin and Blacks were small, indicating similarities between the two groups, differences studied here suggest more of a gap between the groups than in previous analyses. In essence, while many internal experiences of the two groups may be similar, they differ more when it comes to external influences represented by money and jobs.

# Expectations of Family and Friends

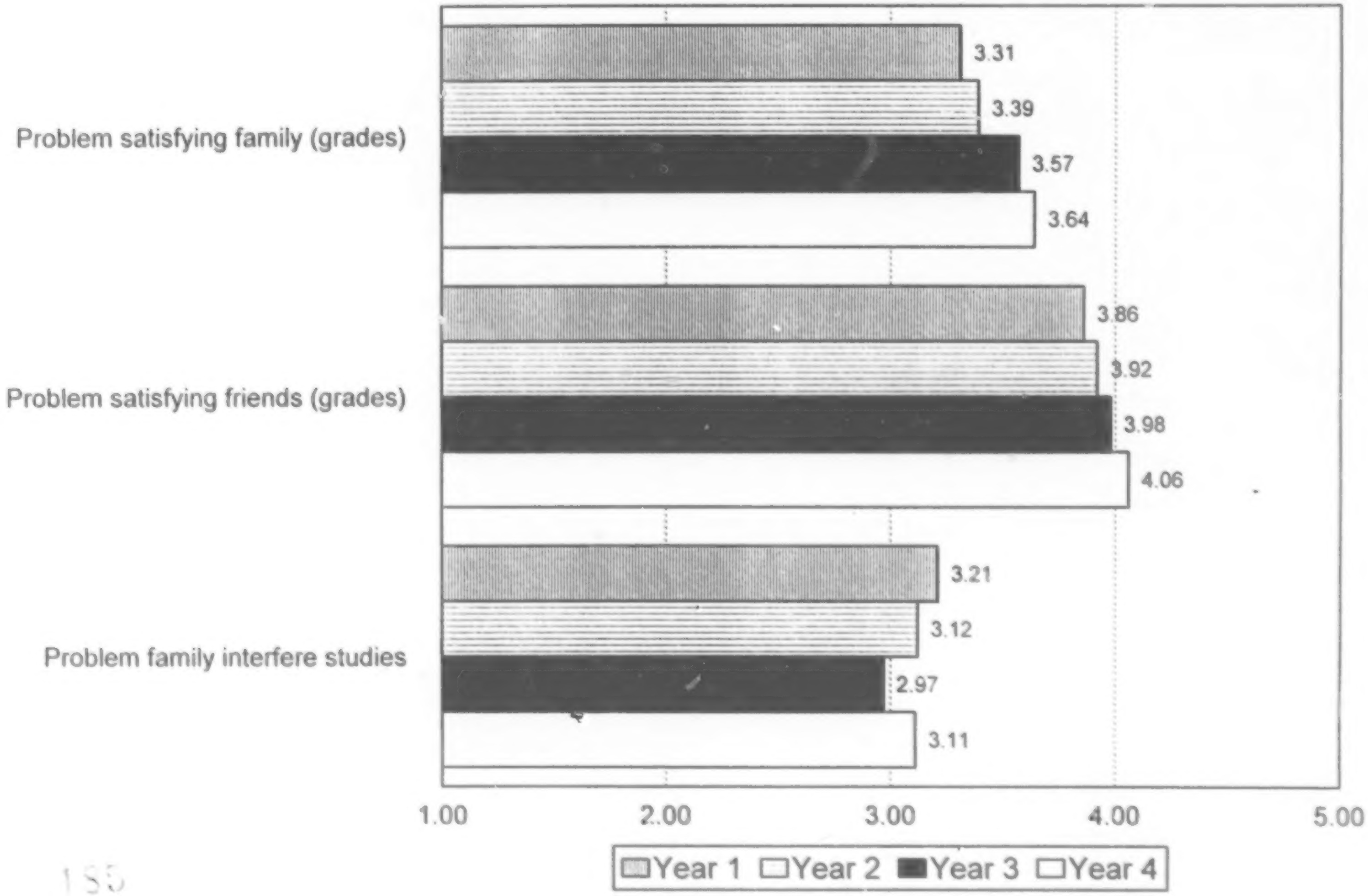
## Changes Over Time

It might be expected that as they gain experience within the institution, students would be increasingly more able to meet the expectations of family and friends who are external to the university. To some degree, at least with reference to grades, this assumption is supported by the information in Graph 7:2. Remembering that 1 means very problematic and 5 no problem at all, information in Graph 7:2 shows that after adjustments for family income, ethno-racial origin, gender, and faculty, in first year students reported more problems (3.31) in satisfying the expectations of family with regard to grades than in fourth year (3.64). Moreover, there is a progressive decline in the problems associated with satisfying families' grade expectations from one year to the next; however, differences are not statistically significant. As the question dealing with satisfying the grade expectations of families was answered by 78% of the sample, the issue can be considered irrelevant for only a minority of students, many of whom likely do not live with their parents.

The same is true when it comes to an examination of satisfying the expectations of friends. There is a slight yet progressive decline in the problems associated with meeting the expectations of this group from 3.86 in first year to 4.06 in fourth year; however, these differences are not statistically significant. As the question focussing on friends' expectations was answered by only 58% of respondents we can conclude that friends' expectations are irrelevant for a large minority of students.

Although differences are not statistically significant, it is interesting to note that students find that family problems interfere with studies slightly less in first

Graph 7:2 Meeting Expectations



(3.21) than in fourth (3.11) years. Again, however, the non-response of 37% of the sample to the question focussing on this dimension indicates that it is irrelevant for a good number of students.

In general, students encounter fewer problems in meeting the expectations of family and friends as time progresses. Differences, however, are not statistically significant.

## Comparisons Among Groups

Over the entire study period, the information in Table 7:2 shows that of the three measures under discussion, students face most difficulty in dealing with family problems that interfere with studies (a score of 3.10). The magnitude of this score indicates that problems in this area arē only slightly non-problematic. Problems in satisfying the grade expectations of family (3.48) are second in importance. These two scores show that families have considerable influence over students over the course of their academic careers. With a score of 4.00, problems students have in satisfying the grade expectations of friends are relatively minor.

Once adjustments have been made for family income, gender, and faculty, table data indicate the problems students have in satisfying the grade expectations of family and friends vary by ethno-racial origin. Moreover, the often observed advantage enjoyed by students of European origin and Blacks is evident once more. On the measure of the extent to which students have difficulty in satisfying the expectations of family, the score of 3.90 for European origin students, and the score of 3.63 for Blacks, indicates that for both groups family expectations are at worst slightly non-problematic. The score of 2.90 for those

## Table 7:2 Meeting Expectations by Ethno-Racial Origin and Gender

| | Problem satisfy family | Sig. | Problem satisfy friends | Sig. | Problems family interference | Sig. |
|---|---|---|---|---|---|---|
| *Mean* | 3.48 | | 4.00 | | 3.10 | |
| | | | | | | |
| *Ethno-Racial Origin* | | | | | | |
| Black | 3.63 | | 4.02 | | | |
| South Asian | 2.90 | | 3.80 | | | |
| Chinese | 3.00 | .000 | 3.47 | .007 | | |
| Other non-European | 3.30 | | 3.83 | | | |
| European | 3.90 | | 4.28 | | | |
| | | | | | | |
| *Gender* | | | | | | |
| Male | | | | | 3.34 | .001 |
| Female | | | | | 2.90 | |

of South Asian origin indicates that this group has problems in meeting the grade expectations of families. Students of Chinese origin fall at the mid-point of 3.00 and those of other non-European origin (3.30) fall slightly above the mid-point.

The figures change slightly if problems in satisfying the expectations of friends are examined. Neither students of European origin (4.28), nor Blacks (4.02), have difficulties in this area. In addition, students of South Asian (3.80), Chinese (3.47), and other non-European (3.83) origins find the expectations of friends slightly non-problematic.

The final observations of the data in Table 7:2 is that after adjustments for family income, ethno-racial origin, and faculty, with a score of 3.34, male students find family interference with studies slightly less problematic than females (2.90). The magnitude of the female score, however, (below the mid-point) shows that family interference is slightly problematic.

Overall, the data in Table 7:2 show that families exert influence over students. Moreover, for some groups of students, that influence causes problems.

## Conclusion

There is one general and several specific conclusions that can be drawn from the analyses presented in this chapter. First, externalities like having enough money, jobs, and the expectations of family and friends are of on-going concern to students. In this regard, students at York are similar to those studied elsewhere. Second, while obtaining enough money to cover expenses is a continuing problem for students, they have relatively few problems in finding part-time employment to help meet these expenses. Third, although the amount of time students spend in part-time employment increases over time, there is no increase in the problems they have in finding enough time to devote to their studies. Fourth, some ethno-racial groups have more difficulty than others in terms of money problems and part-time employment; however, in contrast to other matters covered in this report, problems in these areas do not vary by faculty of enrollment. Fifth, over time there is little change in the extent to which the grade expectations of family and friends present problems for students. Sixth, the extent to which students can meet the grade expectations of family and friends varies most by ethno-racial origin, favouring students of European origin and Blacks.

# Chapter 8: Group Experiences

## Introduction

There is a fear on many university campuses that the experiences of groups like non-White and female students are not as positive as those of particularly white males. As a result, as at York, various policies are in place that are designed to meet the needs of different groups of students. So far, however, the York study has shown that while there are differences in experiences that are related to ethno-racial background, the division is not between Whites and non-Whites. For example, along many dimensions, the experiences of Black students are more comparable to those of European origin students than they are to the experiences of South Asian and Chinese Students. In addition, there are few differences in the experiences of male and female students. Similarly, students' experiences inside the university are not structured by their family incomes.

It is one thing to measure the differences in the experiences of identifiable groups of students. It is another to ask students if *they* think that their experiences are related to ascriptive characteristics like ethno-racial origin or gender: while the experiences of many groups may be similar, students may feel that the experiences of identifiable groups vary.

Because of these possibilities, in the York study students were asked two sets of questions designed to tap into students' perceptions of how identifiable groups of students are treated. The first set was intended to obtain information on institutional responsiveness to different student groups. More specifically, survey respondents were asked: at York University, "how much attention...is given to the needs of:" female students; non-White or 'visible minority students'; students who are gay or lesbian; aboriginal students; White male students; students with learning disabilities; students with physical disabilities; and students from low income families. On a five point scale, scores of 1, 3, and 5 indicated that not enough, about a right amount, and too much attention respectively has been given to the groups in question.

An additional series of questions focussed on the treatment identifiable groups received from faculty and students. In this instance, survey participants were queried on the extent to which students felt: a) that members of different groups should be treated equally; and b) whether or not group members actually were treated equally by faculty and students. On a five point scale, a score of 1 meant that respondents strongly disagreed that the group should be, or actually was, treated equally; a score of 5 indicated that the respondent strongly agreed that the group should be, or was, treated equally. The focus of this chapter will be on how responses to both series of questions change over four years of study and on differences in response related to family income, ethno-racial origin, gender, and faculty of enrollment.

## Institutional Responsiveness

In part because of the heterogenous nature of the York student body, the ideological leanings of York faculty and administrators, and the presence of organized groups on campus, the general university climate is one of responsiveness to different groups in terms of both curriculum and general university practices. As a result, it was surprising to find that for one or more surveys a large number of students were unable to comment on the responsiveness of the university to various groups. The exact percentages unable to comment (non-response rates) are as follows.

| *At York, how much attention do you think is given to the needs of:* | Non-response rate |
|---|---|
| female students | 33% |
| non-White or 'visible minority students' | 40% |
| students who are gay or lesbian | 50% |
| aboriginal students | 66% |
| white male students | 46% |
| students with learning disabilities | 68% |
| students with physical disabilities | 58% |
| students from low income families | 64% |

For questions dealing with students who are gay/lesbian, aboriginals, learning or physically disabled, or from low income families, half or more of students did not respond. One interpretation that can be given to these figures is that for large numbers of students policies designed to meet the needs of particular groups are invisible. (This does not mean that they are ineffectual.) Another implication of the non-response rates is that the number of cases on which most analyses are based are small and, as a result, statistical power is low. Despite this limitation, there are some interesting observations that contribute to our understanding of the student experience at York.

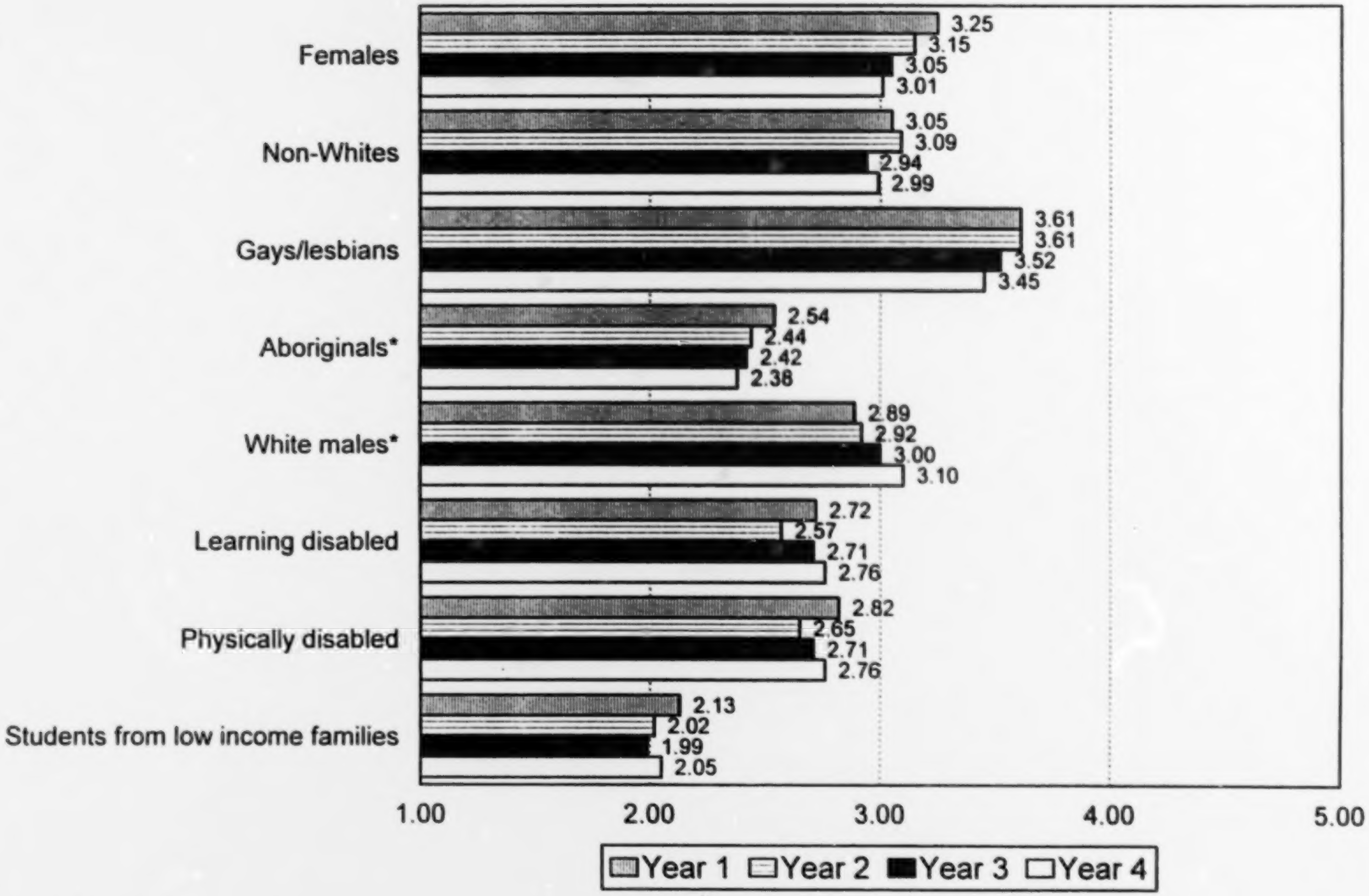
## Changes Over Time

Students' evaluations of how well the university meets the needs of various groups is outlined in Graph 8:1. As a score of 1 means that not enough attention is paid to group needs, 5 indicates too much attention is given to the needs of various groups, and a score of 3 means that the amount of attention given to various groups is about right, graph data show that students believe that the needs of female, non-White and gay/lesbian students are being met to a slightly greater extent than is 'about right'. The attention paid to all other groups is slightly lower than about right. The graph's information also indicates that students feel that the needs of students from low income families receive the least attention.

When examining year to year changes, only perceptions of how well the university meets the needs of aboriginals and White males change in a statistically significant way. The score for aboriginals decreases from 2.54 at the end of first year to 2.38 at the end of fourth (statistically significant at .002 level). In essence, at the end of four years of study, students' assessments of how well the needs of aboriginal students are met are less positive than they had been three years earlier. By comparison, over time, there is a slight increase in the extent to which students feel that the needs of White males are met. On this dimension the score at the end of first year is 2.89 and it increases to 3.10 at the end of fourth year (statistically significant at .009 level). Despite statistical significance, for both of these measures changes are slight.

The impression left by the data in Graph 8:1 is that to a slight degree students feel that the needs of groups with the exception of females, non-Whites and gays/lesbians are not adequately being met by the university. When interpreting these figures, however, it must be remembered that many students had no opinion on how well the university was meeting the needs of many groups. As a result, at

Graph 8:1 Extent to Which University Meets the Needs of Various Groups



*F statistically significant.

best it is possible to say that *of those students with opinions*, only the needs of females, non-Whites and gays/lesbians are being adequately met (i.e., they have a score of 3 or more). The only statistically significant changes that occur between first and fourth years are perceptions of the degree to which the university meets the needs of aboriginals and White males. For the former assessments of adequacy decline; for the latter assessments increase.

## Comparisons Among Groups

While there are few changes over time in perceptions of how the needs of various groups of students are being met, information in Table 8:1 shows after the relevant adjustments, not all groups of students have the same ideas of how well the university is meeting various needs. As seen from the means row, students believe that the needs of low income students (2.05) are being met the least, and those of gays/lesbians (3.55) are being met the most. When interpreting these and other figures in Table 8:1, however, the caveats noted earlier apply: relatively few students answered questions on how well the university meets the needs of identifiable groups of students.

Table data also show that to a limited degree males (3.24) more than females (3.02) believe that the needs of female students are being met. As a score of 3 indicates that the attention received by groups is 'about right', a score of 3.02 indicates that female respondents do not think that their needs are being ignored. Similarly, males (3.69) more than females (3.43) feel that the needs of gay and lesbian students are being met. Still, the magnitude of the scores indicates that both males and females think that the needs of this group are met more than adequately. Finally, males (2.89) are less inclined than females (3.05) to believe that the needs of White males are met.

# Table 8:1 Extent to Which University Meets the Needs of Various Groups by Students' Family Income, Ethno-Racial Origin, Gender, and Faculty

| | Females | Sig | Non-Whites | Sig | Gays/lesbians | Sig | Aboriginals | Sig | White males | Sig | Learning disabled | Sig | Physical disabled | Sig | Low income | Sig |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| *Mean* | 3.12 | | 3.02 | | 3.55 | | 2.45 | | 2.98 | | 2.69 | | 2.74 | | 2.05 | |
| | | | | | | | | | | | | | | | | |
| *Family Income* | | | | | | | | | | | | | | | | |
| LT $26K | | | | | | | | | | | | | | | 2.14 | |
| $26K to $50K | | | | | | | | | | | | | | | 1.75 | |
| $51K to $75K | | | | | | | | | | | | | | | 2.18 | .006 |
| $76K to $100K | | | | | | | | | | | | | | | 2.03 | |
| GT $100K | | | | | | | | | | | | | | | 2.11 | |
| | | | | | | | | | | | | | | | | |
| *Ethno-Racial Origin* | | | | | | | | | | | | | | | | |
| Black | | | 2.73 | | | | 1.89 | | 3.13 | | | | | | 1.69 | |
| South Asian | | | 2.67 | | | | 2.50 | | 3.32 | | | | | | 2.17 | |
| Chinese | | | 2.78 | .000 | | | 2.35 | .027 | 3.17 | .008 | | | | | 1.94 | .049 |
| Other non-European | | | 2.98 | | | | 2.21 | | 3.05 | | | | | | 1.94 | |
| European | | | 3.25 | | | | 2.60 | | 2.82 | | | | | | 2.17 | |
| | | | | | | | | | | | | | | | | |
| *Gender* | | | | | | | | | | | | | | | | |
| Male | 3.24 | 000 | | | 3.69 | 011 | | | 2.89 | .018 | | | | | | |
| Female | 3.02 | | | | 3.43 | | | | 3.05 | | | | | | | |
| | | | | | | | | | | | | | | | | |
| *Faculty* | | | | | | | | | | | | | | | | |
| SSB | | | | | | | 2.78 | | | | 2.81 | | 3.00 | | | |
| Arts | | | | | | | 2.17 | | | | 2.52 | | 2.66 | | | |
| ES | | | | | | | 2.35 | 006 | | | 3.01 | 047 | 2.69 | 004 | | |
| Fine Arts | | | | | | | 2.31 | | | | 2.48 | | 2.61 | | | |
| Glendon | | | | | | | 2.27 | | | | 2.55 | | 2.44 | | | |
| Science | | | | | | | 2.90 | | | | 2.83 | | 2.89 | | | |

As was found in previous sections of this report, students' perceptions vary considerably by ethno-racial origin. To begin with perceptions of the needs of non-White students, table data indicate that only students of European origin (3.25) score above 3, indicating a belief that the needs of the group are met. All non-European origin groups score below 3. South Asian origin students (2.67) are the least likely to state that the needs of non-White students are being met.

Although no ethno-racial group believes that the needs of aboriginals are being met, European origin students (2.60) score highest on this measure. Black students (1.89) are the least likely to feel that aboriginal students receive an adequate level of attention. By contrast, European origin students (2.82) are the least likely to think that the needs of White males are met by the university. All other ethno-racial groups indicate that the university's attention to White males is more than adequate. Students of South Asian origin (3.32) are most inclined to state that the university pays enough attention to White males. Finally, although no group believes that students from low income families get the attention they deserve, students of European and South Asian origins (2.17 each) are more optimistic than others. Black students only score 1.69 on this dimension.

Information in Table 8:1 indicates that students' opinions of the degree to which the university meets the needs of aboriginals and the learning and physically disabled also vary by faculty of enrollment. Students in Science (2.90) are the most likely to feel that the needs of aboriginals are met while Arts students (2.17) are least likely to feel that aboriginals receive sufficient attention. If the needs of the learning disabled are examined, students in Environmental Studies (3.01) are more likely than those in other faculties to think that the university looks after this group. Once again those in Arts (2.52) score the lowest. As for students with physical disabilities, SSB students (3.00) feel that a sufficient amount of attention is given to their needs. Students in all other faculties do not believe that sufficient attention is given to the needs of this group. Students at Glendon (2.44) are least likely to feel that the university pays sufficient attention to the needs of the physically disabled.

Family income plays little role in the perceptions of how well the university meets the needs of identifiable groups of students. In fact, the impact of this variable is statistically significant only for perceptions of the extent to which sufficient attention is given to the needs of students from low income families. There is, however, no consistent relationship between family income and perceptions on this issue. Students from families earning between $51,000 and $75,000 are most likely to say that enough attention is given to the needs of low income students while those from families with incomes from $26,000 to $50,000 are least likely to think that low income students are looked after. No income group, however, feels that the needs of low income students are adequately met by the university.

The overall impression left by the data in Table 8:1 is that students feel that university pays enough attention to the needs of females, non-Whites, gays and lesbians. The level of support for other groups is seen as less than adequate. Moreover, perceptions of the adequacy of the level of support varies by gender, ethno-racial origin, faculty, and, to a lesser extent, by family income. In general, excluding assessments of support for White males, non-White students are likely to feel that support for many groups is less than adequate. Findings such as these suggest a general ideology on the part of non-White students in which many 'non-mainstream' groups are viewed as disadvantaged.

# Treatment by Professors, Staff, and Students

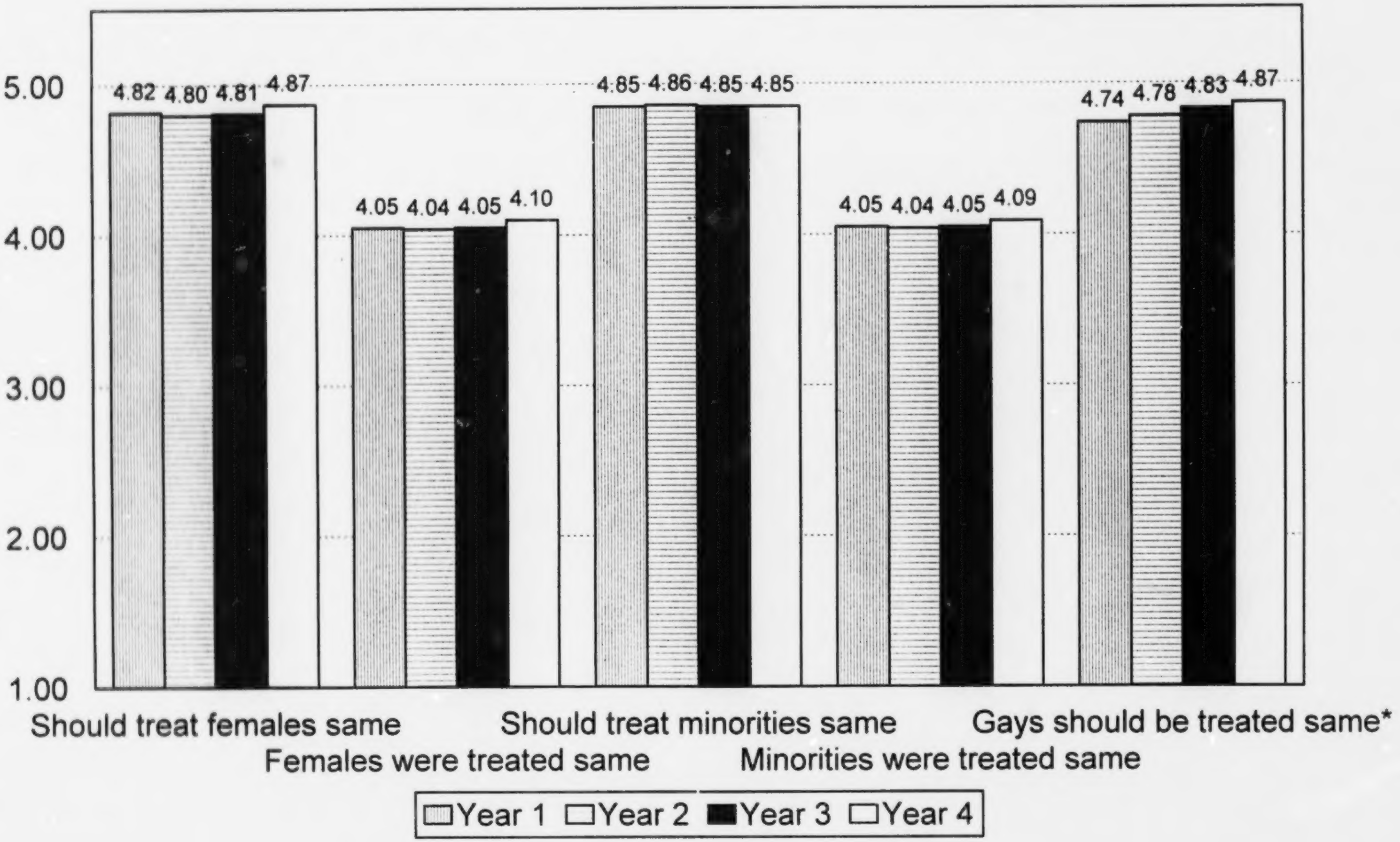
In addition to collecting information on students' perceptions of how adequately at the institutional level York meets the needs of different groups, students were asked questions on: a) whether or not they felt that groups *should* be treated equally by faculty, staff, and students; and b) whether or not they thought that members of various groups *were* treated equally by faculty, staff, and students. Groups referred to in the questions were females, visible minorities, and gays/lesbians. A score of 1 meant that the respondent strongly disagreed that the group should be, or actually was, treated equally; a score of 5 indicated that the respondent strongly agreed that the group should be, or was, treated equally.

The non-response rates for questions asking if females, visible minorities, and gays/lesbians should be treated equally are 11%, 11%, and 19% respectively. By comparison, the non-response rates for the questions asking if females and visible minorities should be treated the same are 34% and 50% respectively. Students were not asked if gays/lesbians were treated equally as it was revealed in a focus group meeting that the vast majority of students at York do not know any gay/lesbian students.

## Changes Over Time

An overview of the information in Graph 8:2 leads to four general conclusions. First, for any year, students believe that females, minorities, and gays/lesbians should be treated in the same way as anyone else. Second, students believe that females and minorities were treated the same as other students by professors, staff, and students. Third, students are more convinced that members of different groups should be treated equally than they are that group members actually were treated equally. Fourth, with the exception of feelings on whether or not

## Graph 8:2 Treatment of Various Groups by Professors, Staff, and Students



1 = strongly disagree; 5 = strongly agree. *F statistically significant.

gays/lesbians should be treated in the same way as other students, there is little change between first and fourth year. For gays/lesbians, there is a slight yet progressive increase in beliefs that they should be treated equally from 4.74 at the end of first year to 4.87 at the end of fourth (significant at the .000 level).

## Comparisons Among Groups

Information summarized in Table 8:2 reveals different ethno-racial groups have varying ideas on how females, minorities, and gays/lesbians should be, and were, treated. For example, students of South Asian origin (4.94) have the strongest beliefs that females should be treated equally; those of Chinese background (4.72) have the least commitment to equal treatment for females. Although statistically significant, overall differences based on ethno-racial origin are very small.

Opinions also vary by ethno-racial origin on whether or not minorities were treated equally. Students of Chinese origin (3.61) are the least likely to say that minorities were treated equally by professors, staff, and students while European origin students (4.40) believe most that equal treatment was meted out to all.

Table data also indicate that other non-European (4.89) and European origin (4.81) students believe most that gays/lesbians should be treated like other students. The weakest beliefs on this issue are found among South Asian origin (4.70) and Black (4.72) students. Absolute differences, however, are small.

The final observation to be drawn from Table 8:2 is that Glendon (4.89) and Fine Arts (4.86) have stronger beliefs that gays/lesbians should be treated equally than particularly Arts' (4.70) students. Although differences among faculties are

## Table 8:2 Treatment of Various Groups by Students' Ethno-Racial Origin and Faculty

| | Should treat females same | Sig. | Females were treated same | Sig. | Should treat minorities same | Sig. | Minorities were treated same | Sig. | Gays should be treated same | Sig. |
|---|---|---|---|---|---|---|---|---|---|---|
| *Mean* | 4.80 | | 4.06 | | 4.85 | | 4.06 | | 4.81 | |
| | | | | | | | | | | |
| *Ethno-Racial Origin* | | | | | | | | | | |
| Black | 4.86 | | | | | | 3.80 | | 4.72 | |
| South Asian | 4.94 | | | | | | 3.77 | | 4.70 | |
| Chinese | 4.72 | .018 | | | | | 3.61 | .005 | 4.77 | .000 |
| Other non-European | 4.80 | | | | | | 4.06 | | 4.89 | |
| European | 4.87 | | | | | | 4.40 | | 4.81 | |
| | | | | | | | | | | |
| *Faculty* | | | | | | | | | | |
| SSB | | | | | | | | | 4.82 | |
| Arts | | | | | | | | | 4.70 | |
| ES | | | | | | | | | 4.77 | .010 |
| Fine Arts | | | | | | | | | 4.86 | |
| Glendon | | | | | | | | | 4.89 | |
| Science | | | | | | | | | 4.81 | |

small on this dimension, the relatively low commitment of Arts students to equal treatment for gays/lesbians is surprising.

## Conclusion

The information presented in this chapter indicates that while students feel that the amount of attention given by York to the needs of female, non-Whites, gay/lesbian, and White male students is about right, it is a different story for aboriginal, learning and physically disabled, and low income students. Moreover, with the exception of aboriginals for whom students increasingly believe that needs are not met, and White males for whom students feel more and more that their needs are met, there is little change between first and fourth year.

Similarly, with the exception of beliefs that gays/lesbians should be treated the same as other students by professors, staff, and students, there is no change from one year to the next in students beliefs that members of various groups should be treated equally or in their perceptions that these groups were treated equally. The exception to this generalization is the finding that there is a small increase over the survey period in the strength of beliefs that gays/lesbians should be treated like other students. Consistent with the findings in other chapters, members of different ethno-racial groups vary in the degree to which they feel that identifiable groups of students should be, or were, treated equally by professors, staff, and other students.

# Chapter 9: Future Jobs

## Introduction

So far in this report, we have examined York students' reasons for attending university; their course work and classroom experiences; the types of experiences they have outside of the classroom; the sources of support for their studies; forces external to the university, such as jobs and the expectations of family and friends, that have the potential to affect their studies; and the treatment experienced by specific groups of students such as females and non-Whites. All of these phenomena have been analysed within the general framework of the university impact model as outlined in the Introduction. The primary assumption of this model is that positive experiences in many of the realms studied contribute to positive educational outcomes.

As one of the main reasons students come to York as to other universities, is to gain the credentials necessary for a job, it is fitting that the penultimate chapter of the report focus on jobs. We do not know if when entering York students have specific jobs in mind, whether they see a connection between their education and their future careers, how easy they think it will be to get a job once they graduate, and if they would leave university were they to be offered a good job. Each of these topics will be dealt with in the current chapter.

## Jobs

At the end of first year survey results show that only 47% of students stated they knew "what job or position [they] would like to obtain right after graduating from university." The comparable figures for the end of second, third, and fourth years are 46%, 47%, and 51%. While the university experience may contribute to development in many areas, it appears not to contribute to the clarification of students' occupational goals.

The exact relationship that students view between curriculum and future careers was determined by asking, "would you say that the topics covered in your courses were, on balance, important for your future career success?" Response options ranged from 1 meaning not important at all to 4 indicating very important.

Over all four surveys, the mean score on this question was 3.04, indicating that students felt topics covered in their courses were somewhat important for career success. Moreover, there were no statistically significant changes from one year to the next on this measure. After adjustments for family income, ethno-racial origin, and gender, however, there is evidence that perception of course relevance varied by faculty of enrollment. The highest relevance was reported by students in the Schulich School of Business (3.26). Students in Arts (2.87) were the least likely to see that their courses were connected to potential jobs. In ascending order, the scores for students in the remaining faculties were as follows: Environmental Studies (2.92), Fine Arts (3.00), Glendon (3.06), and Science (3.11). Despite the fact that these differences are significant at the .017 level, in absolute terms, they are not large.

Although students feel that their courses are somewhat related to jobs, in a question in which students were asked "how easy do you think it will be to find a job that is closely related to your education," the average score was 2.55 on a scale where 1 meant very difficult and 5 very easy. Despite a perception that courses were important for career success, this score indicates that students are not optimistic that jobs will be related to their education. There was, however, some slight yet statistically significant (at the .012 level) year to year fluctuation. The scores for surveys one through four were 2.59, 2.45, 2.55, and 2.62 respectively; however, change is not consistent in one direction. Moreover, across all four surveys, there were differences related to both gender and faculty of enrollment. With a score of 2.67, males were slightly more optimistic than females (2.46) that they would find a job related to their education (significant at the .043 level). Further differences were related to faculty of enrollment (significant at the .028 level). Students in the Schulich School of Business (3.18) were most likely to feel that they could get a job related to their education. Note, however, that their score is just above the mid-point for the scale. With a score of 2.27 Fine Arts students were least likely to believe that they could get a job related to their studies. In ascending order the remaining scores were: Environmental Studies, 2.30; Arts, 2.46; Science, 2.53; and Glendon, 2.60.

In a final question relevant to jobs, students were asked the extent to which they agreed with the statement that, "if a good job were offered to me I would take it rather than graduate." Response options were 1, strongly disagree, to 5 strongly agree. After the appropriate adjustments, over all four surveys, the average score for this question was 1.92. In short, students somewhat disagree that they would take a job if one were offered. Thus, despite the fact that students doubt that they will find a job related to their education, they are not prepared to cut their studies short to obtain employment. This sentiment does not change from one year to the next; however, there are some differences that are related to faculty of enrollment (significant at the .017 level). With a score of 1.56, Glendon students are the least likely to take a job before the completion of their studies. By contrast, the 2.66 score for students in Fine Arts indicates that they are far more willing to consider work before they get a degree. The scores on this dimension for students in Business, Arts, Environmental Studies, and Science are 1.65, 1.79, 2.02, and 2.05 respectively.

## Conclusion

Approximately 50% of students enter university knowing the job they would like once they graduate. At the end of four years of study, there is no increase in the percentage who know what job they would like. Despite this lack of commitment to specific jobs, in general, students feel that there is a connection between what they learn in class and future career success. Nonetheless, and contradictorily, students also feel that it will be hard to get a position that is related to their education, and they are unwilling to leave school if a job were offered.

# Conclusion

## Introduction

The focus of this report has been on the experiences of undergraduate students at York University over four years of study. The experiences chosen for discussion were those that have been found to contribute to the realization of educational outcomes such as the acquisition of subject matter expertise and intellectual development. Although it would have been desirable to compare the experiences of students at York to those of their peers at other Canadian universities, the research that would make such comparisons possible has yet to be done; however, as the characteristics of York students are in many ways comparable to those of others attending large commuter universities, we can assume for the time being that the experiences studied in this report likely are common to many Canadian students.

What we can comment on with more certainty is the extent to which students' experiences change over the course of their studies and the degree to which students with different family incomes, ethno-racial origins, gender, and faculty affiliation share similar experiences. We can also make some value judgements regarding the extent to which the university experience improves over the course of an undergraduate's career. In dealing with these issues, it is not the intent to repeat conclusions reached in each of the chapters. Instead, attention will focus on underlying themes in the findings.

## In-Class Experiences

In general, what goes on within the classroom has important consequences for educational outcomes. This is particularly true in commuter universities in which students often do not participate in extracurricular events or have intensive out-of-class interactions with other students. As a result, it was important to find that York students perceive a slight improvement between first and fourth years in characteristics of professors, such as their sense of humour and the extent to which they are organized. Students also believe that over time their opinions are valued more in class and that there are more faculty to whom they can turn for help. Also, getting good grades becomes less and less problematic and satisfaction with grades increases. Findings such as these suggest that along some dimensions things do get better over the course of an undergraduate's career. At the same time, satisfaction with class size decreases.

Over the four years of the study, it was clear from the data that identifiable groups of students had different experiences. For example, Black students were more likely to view their professors positively than South Asian and Chinese origin students. Indeed, some of the experiences of Black students were more positive than those of European origin students. Similarly, students' views varied by faculty: those in Science had the least positive, and students in Fine Arts the most positive, views of their faculty. By comparison, students' views of professors did not vary by gender or family income.

Group-based differences were also evident in the number of hours students devoted to their studies, control over academic life, course problems, and satisfaction with various aspects of the university experience. More specifically, those of South Asian and Chinese origin reported fewer hours of study than other groups. European origin and male students stated that they had the greatest degree of control over their academic lives. Chinese and South Asian origin students and those in Science reported more course problems than others. Not surprisingly, satisfaction with various aspects of the university experience was highest for European origin and Black students and lowest for South Asian and Chinese background students. Moreover, in terms of in-class experiences, differences related to ethno-racial origin were greater than those based on family income (that were negligible), gender, and faculty of enrollment.

Overall, findings such as the above indicate that family income is of little consequence for students' classroom experiences. In contrast to the 'chilly climate' thesis, it also appears that at York the in-class experiences of female students are no more negative or positive than those of their male peers. Finally, while classroom experiences vary by ethno-racial origin, the division is not simply one between Whites and non-Whites. In many instances Black students have more in common with those of European origin than either of them have with students of Chinese and South Asian descent.

## Experiences Outside Class

Among experiences outside of class discussed in this report, contacts with faculty, participation in out-of-class social activities, and opportunities to make friends were the most important. In general, students make few contacts with faculty outside of class for various reasons. This said, in fourth year, students have more meetings to discuss job plans, course problems, and intellectual matters than in previous years. Importantly, the number of contacts does not vary by family income, ethno-racial origin, or gender. There is, however, some faculty based difference with students at Glendon reporting the greatest number of faculty contacts.

In addition to few contacts with faculty, students participate in a limited number of social activities outside of class. In addition, student involvement in such activities declines over time. Consistent with other negative findings of this study, the involvement of South Asian and Chinese students is lower than that of other groups. Moreover, the fact that students in different faculties participate in different types of activities suggests the possibility of varying cultures in each.

Not surprisingly, students report fewer and fewer problems in making friends over the course of the study. The amount of time they spend with friends, however, does not change. Overall, students of Chinese and South Asian origin report the most difficulty in making friends. The same students report the least satisfaction with their social lives on campus.

## Other Experiences

Other experiences studied in the report that do not fall into either of the other two categories include students' sources of support for studies; factors external to the university, such as having a part-time job, that might affect studies; and the experiences of identifiable groups of students such as females. Although research has demonstrated the benefits of group study if done properly, the majority of York students report studying alone. Over time, fewer and fewer students report having difficulties with their studies. When problems are encountered, friends are the primary source of help; however, over time, more and more reliance is placed on help from professors.

For York students, money is an on-going concern; however, getting a part-time job is less and less problematic as students progress from first to fourth year. In addition, students report increases in the number of hours worked between first and fourth years. If the experiences of different groups are examined, it is evident that Black students have the greatest difficulty in finding part-time jobs. In terms of meeting the expectations of family and friends, however, Blacks, like students of European origin, report the least difficulty.

Over the four years of the study, there is a decline in the extent to which students believe that the university meets the needs of aboriginal students; however, there is an increase in the belief that the university adequately meets the needs of White males. There is also an increase in the belief that gays/lesbians should be treated the same as other students. At the same time, non-White students are less inclined than other students to feel that the needs of non-Whites are met.

## Overall

There are five very general conclusions that emerge from the foregoing with regard to changes in students' experiences over four years of study and differences in the experiences of identifiable groups.

First, there is some general improvement in students' in-class experiences.

Second, students become less involved in many out-of-class activities and maintain a constant amount of interaction with friends.

Third, overall differences between first and fourth years are not large.

Fourth, in general, the experiences of South Asian and Chinese origin students are relatively negative.

Fifth, there are virtually no differences in experiences based on family income and gender; however, experiences vary somewhat from one faculty to the next.

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# Endnotes

1. Although Terenzini and Associates (1996) call the model the 'college impact model', in the Canadian context it makes more sense to talk about the 'university impact model'. Other possible university impact models include those by Astin (1993), Tinto (1987; 1997) and Weidman (1989).

2. While in the original model double-headed arrows connected course work and curricular patterns to out-of-class experiences and classroom experiences, and classroom experiences were connected by a similar arrow to out-of-class experiences, it was not felt that some of these links were logical. As a result, in the model used in this study, not all of the original links have been maintained.

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